

**Boston Edison Company
Commonwealth Electric Company
Cambridge Electric Light Company**

**Capital Authorizations in Excess of
\$100,000
Years 2000-2005**

Justifications provided for cost variances:

- **Over \$25k for projects < \$250k**
- **Over \$50k for projects < \$500k**
- **Over 10% for projects > \$500k**
- **Any project with variance > \$1M**

Boston Edison Company

Years 2000-2005

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2000	00200	Retire Station 360	DP	\$633,235	\$185,000	\$448,235
A supplemental funding amount of \$633.2K is being requested for the following cost overruns. This project was authorized prior to the final design. The design estimate was \$423.8K. This estimate contemplated the entire project being performed by NSTAR labor. Due to a need to expedite the project, contractor labor was brought in to complete this project. The remaining overrun is due to increased material costs of \$101.6K and \$63K of internal labor from a scope change. There was an additional 3200 ft of 3-326 spacer cable required for this job. In addition to the cable, extra poles needed to be installed along with other small ancillary overhead equipment.							
120	2000	00202	Convert pneu9 (partial) Roxbury	DP	\$1,706,928	\$950,000	\$756,928
This project was authorized prior to the final design. The labor overrun is due to under-estimating the amount of internal labor to perform this work. Straight time overrun is \$66.4K Also, the labor estimate was based on straight time only and NSTAR realized \$179.1K of overtime that was not included within the estimate. Invoice costs (\$511K) are due to increased conduit work, contractor labor to pull cable, and paving.							
120	2000	00212	SNV 482,Increase XFMR Capacity, 66	DP	\$132,372	\$142,000	(\$9,628)
120	2000	00214	Relieve Newton Line Group	DP	\$490,344	\$350,000	\$140,344
Internal labor was over by \$49.9K which is broken down between \$36.5K of overtime and \$13.4K of straight time. Overtime was not factored into the design of the job. The cause of the overtime costs was due to performing this work during non-business hours to not inconvenience any surrounding customers with potential outages during normal working hours. The remainder of the over-run is due to external labor of \$90.4K. The external crews were used to install the new overhead circuit and connect this new line to the adjacent overloaded station.							
120	2000	00216	Huntington Avenue Duct - Roxbury	DP	\$914,519	\$400,000	\$514,519
This project was authorized prior to final design. Spending actually was greater than its design estimate by approximately \$10K. The overrun is based on greater internal labor costs than what was set forth in the budget estimate.							
120	2000	00221	Communications Infrastructure Plan	GP	\$4,680,482	\$6,010,000	(\$1,329,518)
120	2000	00223	SUBSTATION DATA COLLECTION SYSTEM	GP	\$91,715	\$115,000	(\$23,285)
120	2000	00300	Cambridge Trust Co, 326 Cambridge S	DP	\$131,267	\$129,678	\$1,589
120	2000	00301	MDA/Millennium Block-North, Avery S	DP	\$435,060	\$351,603	\$83,457
The additional \$84,000 in authorized spending required by this project was due primarily to an underestimation of company resources required to complete the work, and installation of primary and secondary racks in (Network Vault 6220,A,B,&C.) The Engineering estimate for this project assumed 1,927 man-hours with an estimated labor cost of \$74,595. The actual labor hours totaled 3,180 and actual labor costs were \$133,460, a variance of \$58,811 or 70% of the total project overrun. The reason for the difference in labor hours was the difficulty of completing this work in the heart of the downtown area of Boston that was not taken into account in the original project estimate.							
120	2000	00302	Parametric Tech - Kendrick St., NEE	DP	\$214,712	\$185,000	\$29,712
The cost over-runs are associated with higher materials costs than anticipated. This project installed an additional pad mount line transformer with its ancillary equipment (regulators, cable, splice kits, wire and small tools) beyond original scope.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2000	00303	Bos 0 columbus/Benton / ave dormint	DP	\$213,272	\$165,418	\$47,854
The additional \$48,000 in authorized spending required by this project was due primarily to an underestimation of company resources required to complete the work. The Engineering estimate for this project assumed 892 man-hours with an estimated labor cost of \$34,385. The actual labor hours totaled 1933 and actual labor costs were \$79,300, a variance of \$44,915 or 94% of the total project overrun. The primary reason for the difference in labor hours was the difficulty of completing this work in the heart of the downtown area of Boston that was not taken into account in the project estimate.							
120	2000	00304	Supply New Customer, GTE, @ 100 Met	DP	\$495,610	\$300,000	\$195,610
This project was authorized prior to final design. There are small overruns for material installed and contractor labor versus their designed amounts. Collectively these overruns are \$35K of the total. The rest of the overrun, approximately \$160K, is associated with our design estimate for NSTAR labor being too low. Out of this labor overrun is approximately \$45k of overtime, which was not part of the design estimate.							
120	2000	00305	Tech Commons, Speen St., Natick	DP	\$43,557	\$100,000	(\$56,443)
120	2000	00306	The Summit, Marymount Ave., Westwoo	DP	\$387,502	\$225,000	\$162,502
The internal labor over-run of \$18.4K is due to overtime costs which were not part of the original estimate. The material over-run of \$22.9K is due to additional conduit and cable which was installed. The remaining over-run of \$121.2K is for external labor. External labor was used to install the conduit, cable, switches, and ancillary equipment. NSTAR resources installed the new pad mount transformer and performed all the necessary splicing and acceptance testing. These activities were all consistent with their design and authorized estimates.							
120	2000	00307	System Control Integration	GP	\$1,656,951	\$1,940,000	(\$283,049)
120	2000	00309	Scheppens Eye Res, 20 Staniford St.	DP	\$213,996	\$177,588	\$36,408
The additional \$37,000 in authorized spending required by this project was due to the following: original man hours estimated at 323 man-hours with estimated labor costs of \$12,757. The actual labor hours totaled 666.25 and actual labor costs were \$28,022. Reason for difference in labor hours was difficulty of completing work at large medical complex in downtown Boston. Additional cost of \$17,000 for outside services primarily due to customer deadline request associated with installation of building type network vault (TNV 6221, connected to two different network feeders originating from Station 2.)							
120	2000	00310	Modern Continental Cons.,470 Atlant	DP	\$560,444	\$276,000	\$284,444
This project was approved prior to final design. The internal overrun was due to funding internal labor at straight time pay and working the majority of the job on overtime. These overtime charges were required to avoid impacts to the customer during normal business hours.							
120	2000	00311	Boston Athenaeum, 10 1/2 Beacon St.	DP	\$412,651	\$313,986	\$98,665
The additional \$80,000 in authorized spending required by this project was due to the following: original man hours estimated at 1,454 man-hours with estimated labor costs of \$54,057. The actual labor hours totaled 2,410 and actual labor costs were \$110,463. The primary reason for difference in labor hours was difficulty of completing work in historical district (Beacon Hill), in downtown Boston. Additional cost of \$23,000 for outside services primarily due to difficult working conditions in Beacon Hill area associated with building and installation of two vaults (SNV 33 and SNV44), connected to two different network feeders originating from Station 514.							
120	2000	00312	BED 55 MIDDLESEX TURNPIKE PSINET	DP	\$434,009	\$990,972	(\$556,963)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2000	00314	Bos Fid Part.&Tr, 165 Tremont St, B	DP	\$172,256	\$142,000	\$30,256
The additional spending required by this project was due to the under estimation of company resources required to complete the work. The Engineering estimate for this project assumed 444 man-hours and the actual labor hours totaled 1,114. Time constraints, due to downtown Boston location was the main reason for the variance in labor costs.							
120	2000	00315	Boston Prop,111 Huntington Ave, Bos	DP	\$297,855	\$247,000	\$50,855
Authorization was prepared & approved prior to field lookup and final design estimate. The Engineering estimate for this project was 374 man-hours with an estimated labor cost of \$14,900. The actual labor hours totaled 823 and actual labor costs were \$34,900. Material estimated at \$207,562 vs. actual costs of \$218,900 for a variance of \$11,300..							
120	2000	00317	Michelangelo Elderly Hous.1Michelan	DP	\$466,035	\$243,000	\$223,035
This project was approved prior to final design. The labor estimate was based on straight time dollars and actual time required was greater than estimated. The overtime charges were required to avoid impact to the customer during normal business hours.							
120	2000	00318	EMC Engg Bldg, 176 South St, Hopk	DP	\$505,390	\$305,000	\$200,390
This project was authorized prior to final design. This overrun is due to material costs being higher then anticipated. Also the internal estimate was too low in the design of the project. The remaining overrun is due to external labor being higher than estimated.							
120	2000	00319	EMC R&D Bldg, 52 South St, Hopk	DP	\$127,069	\$295,000	(\$167,931)
120	2000	00323	Globix - New Stations 336-1, 336-2	DP	\$500,856	\$575,000	(\$74,144)
120	2000	00325	Dart.St.LLC 131Dartmouth St,Bos Sta	DP	\$364,216	\$249,026	\$115,190
Authorization was prepared & approved prior to field lookup and final design estimate. Under estimation of company resources required to complete the work. Outside Service costs higher than anticipated. The project location dictated that work could not be performed during daytime hours, which resulted in increased labor costs.							
120	2000	00326	Canton Sherman to Neponset Wash	DP	\$921,283	\$850,000	\$71,283
120	2000	00327	Wtd 580 High St westwood t of cond	DP	\$309,531	\$730,000	(\$420,469)
120	2000	00328	Relocate OH to UG Natick Center	DP	\$221,272	\$100,000	\$121,272
There is no need for a supplemental authorization. The customer, Town of Natick in accordance with Massachusetts Law 166:22 would bear the cost of this infrastructure relocation. The attached CIAC details the financial contribution the Town of Natick will make to NSTAR for the recovery of costs to complete this project. The contribution has not been received as of yet. Once this payment is received the cost incurred on work order 1094130 will be fully recovered. Thus bringing the financial obligation to NSTAR to \$0.							
120	2000	00329	Bos Properties, 100 Belvidere St.,B	DP	\$281,941	\$164,000	\$117,941
Authorization was prepared & approved prior to field lookup and final design estimate. Under estimation of company resources required to complete the work. Outside Services for Conduit installation and Manhole rebuilds were estimated too low. The project location dictated that work could not be performed during daytime hours, which resulted in increased labor costs.							
120	2000	00330	Broad&Wendell,109 Broad St.,Bos Sta	DP	\$244,995	\$111,704	\$133,291
Authorization was prepared & approved prior to field lookup and final design estimate. Underestimation of company resources required to complete the work. Outside Services for Conduit installation and Manhole rebuilds were estimated too low. The project location dictated that work could not be performed during daytime hours, which resulted in increased labor costs.							

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120	2000	00401	GIS - BEC & COM Gas & COM Elec prin	GP	\$2,285,813	\$3,328,862	(\$1,043,049)
120	2000	00403	NIS Infrastructure	GP	\$434,790	\$600,000	(\$165,210)
120	2000	00993	Billing Insertion Machine	GP	\$456,939	\$450,000	\$6,939

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120	2001	01167	Install Two (2) Additional Tie Line	DP	\$119,317	\$650,000	(\$530,683)
120	2001	01180	Install Dedicated DSS Line To Logan	DP	\$847,643	\$450,000	\$397,643
The entire over-run is due to external labor not being part of the original estimate and design. The work performed by external labor was due to increased civil costs, additional conduit installation, and environmental clean-up costs associated with the new underground line. Additional communication equipment added scope to the original estimate.							
120	2001	01191	stuck breaker, station 329/eng/cons	DP	\$1,787,166	\$1,100,000	\$687,166
A supplemental authorization for \$1.787M is requested for this project. This project was authorized prior to final design. Attached to this document is the Contract Amendment detailing the contractor labor. Within the amendment it states that NSTAR labor would be used to complete the project. This contributed to approximately \$345.5K of the overrun since this was not part of the original estimate of work. Of this labor amount, \$126K is for overtime which was not part of the design estimate. The contract amendment contributes approximately \$272K of the overrun. The remaining \$70K overrun is additional materials installed and not included in estimate. Instead of replacing just the relays, this project replaced the relays plus all control panels and board sections.							
120	2001	01192	Purchase 115kV / 14 kV Mobile Trans	DP	\$1,296,352	\$2,000,000	(\$703,648)
120	2001	01213	Convert Ckt 8N9, Roxbury	DP	\$599,598	\$250,000	\$349,598
An Authorization for \$599,598 is requested to establish two new 13.8kV distribution circuits to supply 3,380 kVA of load transferred from 4kV circuits 8N9,16N21, and 9N21. By converting loads from these circuits (and other adjacent circuits) to the 13.8kV open loop design, we expect to deliver a marked improvement in customer service. The original estimate for this project was estimated at \$250,000 and was approved on January 31, 2001. The additional \$349,598 in authorized spending required by this project was due primarily to difficult field conditions; greater than expected conduit work and factors used for estimating at this time were too low and created cost underestimates.							
120	2001	01217	Convert Portions of Circuit 20N28	DP	\$596,121	\$670,000	(\$73,879)
120	2001	01218	Convert 4kV UG System to 13.8kV Loo	DP	\$277,768	\$580,000	(\$302,232)
120	2001	01226	Est. SNV464, Columbus Ave, Bos. Sta	DP	\$486,841	\$250,000	\$236,841
The project was originally authorized based on a fully detailed scope and estimate. The contractor bids for the civil work to construct the vault were \$110K higher than originally estimated and the contractor bid for the electrical work was \$136K higher than originally estimated. The reason for both of these variances is due to work restrictions, (being asked to stop work). and conditions on Columbus Ave. in Boston.							
120	2001	01228	Increase W-R/Brookline Area Supply	DP	\$2,809,885	\$1,750,000	\$1,059,885
The increase in spending for this project consists of contractor labor charges well in excess of what this project had for a design estimate. Actual cost for contractor labor was \$1.9M. There was approximately \$1.75M in amendments for contractor labor. Increased external labor costs are offset by \$100k reduction in NSTAR labor. Expected total spending for this project is \$2.8M. The amendments which caused the overrun were due to added scope and additional resources needed to install added conduit and replace blocked and collapsed ducts. The internal labor overrun was due to added inspectors and engineering time for the added scope.							
120	2001	01230	Relieve Brighton 13.8kV Distributio	DP	\$428,608	\$475,000	(\$46,392)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2001	01231	New Brookline Village Supply	DP	\$1,146,417	\$945,000	\$201,417
Additional work scope in order to support the 4kv conversion in Coolidge Corner, Brookline and the installation of additional sections of cable to Station 506. 126 Harvard Court, Brookline. This resulted in increased actual company resources and outside contractor invoicing not part of original project authorization.							
120	2001	01232	Improve Capacity Coolidge Corner -	DP	\$247,454	\$220,000	\$27,454
The additional \$27,454 in authorized spending required by this project was due primarily to difficult field conditions; manhole congestion resulted in additional company labor to be expended to install cable.							
120	2001	01233	Increase Medical/Fenway Area Supply	DP	\$3,575,384	\$2,650,000	\$925,384
The actual invoice charges were for time and materials. Also spending for materials, (\$472k), are less than estimated due to the time and material bids that can be seen in the overrun stated above for invoices. Part of this overrun is associated with additional conduit costs \$277.3k that needed to be installed. This project under estimated the amount of labor it would costs to complete this job. Also the estimate was based on straight time costs not overtime. This project realized \$197K worth of overtime that was not budgeted within the estimate. These overtime charges were a result of permit work which required work to be performed during non-business hours in order to not inconvenience local customers.							
120	2001	01237	Relieve Walpole Line Group	DP	\$235,676	\$175,000	\$60,676
The project was authorized prior to final design. The \$75K overrun is due to awarding the project to contractors after design completion. The offset of (\$14K) reflects lower than originally designed internal labor costs.							
120	2001	01245	Reconfigure Line 304-77H	DP	\$737,706	\$490,000	\$247,706
The additional \$247,706 in authorized spending required by this project was due primarily to underestimation of company resources required to complete the work. The Engineering estimate for this project was 3,355 man-hours with an estimate labor cost of \$140,147. The actual labor hours totaled 4,844 and actual labor costs were \$192,173. Material estimated at \$212,182k vs. actual costs of \$253,478 for a variance of \$41,296k. The project location in Boston made it difficult to complete work in a timely manner, lack of duct space & congestion in Manholes caused the project to be labor intensive, which resulted in increased labor costs. Conduit costs of 50,000k not included in original estimate. Cable installation costs \$150k over original estimated installation.							
120	2001	01248	ARL RELIEVE THE ARLINGTON LINE GROU	DP	\$1,752,621	\$1,500,000	\$252,621
The biggest overrun is in contractor labor. There was additional work with contractor labor to install/upgrade existing overhead lines. There were amendments to contracts (see attached documents) # 7955, #10537, #8802) for changes in scope. Expected total spending for this project is \$1.9M							
120	2001	01253	Gale&Wentworth, 1 Lincoln St.,Bos S	DP	\$564,775	\$400,000	\$164,775
This project was authorized prior to final design. The design estimate for this job totaled \$493.7K. The difference between the design estimate and the authorized amount was for extra conduit. The original PAD stated installation of 60 ft of conduit. Actual design and installed amount of conduit was 360 ft. This increased the estimated amount from \$400K to \$493.7K. The remainder of the over-run of \$71.1K was for higher internal labor than anticipated.							
120	2001	01256	Reit Co - Internet Hotel - 109 Broo	DP	\$1,034,853	\$400,000	\$634,853
This document references the financial commitment of the customer and reimbursement of their customer contribution if revenues did not equal their demand for the build-out of the infrastructure NSTAR provided. This project was authorized net of the contribution and prior to final design. The design estimate for this project was \$1,137,932. A customer contribution of \$562,546 would have decreased this estimate to a requested amount of \$575.386. The actual spending for this project was \$1,034,853. This includes reimbursing the customer a payment of \$452,950. True work costs would be the net of the actual spending of \$581,903. This amount is more in line to the design estimate of \$575,386 which is referenced above. The variance between the authorized amount of \$400K and the actual work costs of \$581.9K of \$181.9K is due to external labor overruns and overtime of \$23.1K which was not factored into the original estimate. The external labor overrun of \$158.8K is due to installing 1900 ft of additional cable and added conduit.							

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120	2001	01329	Emerson Coll.,10 Boylston Pl.,Bos.,	DP	\$252,397	\$160,000	\$92,397
This project was authorized prior to final design. The design estimate was \$201.8K. The variance between the authorized amount and the design amount of \$41.8K is due to higher internal labor to install the new vault and equipment and external labor for the conduit work. The remaining cost overrun of \$50.6K is due to rigging costs being higher than anticipated and internal labor being greater than the design estimate.							
120	2001	01335	Tufts Univ.,150 Harrison Ave,Bos, S	DP	\$467,173	\$278,000	\$189,173
The overrun is due to higher internal and external labor. The internal labor overrun of \$64.8K is due to \$19.6K of overtime which was not part of the original estimate and \$45.2K of straight time labor which is due to greater installation costs than estimated. The external labor overrun of \$124.4K is due to greater costs associated with rigging/crane services and conduit installation. This added conduit costs is due to blocked and collapsed ducts which needed to be replaced and/or cleared.							
120	2001	01336	Markley Stearns Bos 1 Summer St., S	DP	(\$46,451)	\$530,000	(\$576,451)
120	2001	01337	Increase Capacity at Needham Statio	DP	\$1,859,465	\$5,030,000	(\$3,170,535)
120	2001	01338	Increase Capacity Trapelo Road, Wal	DP	\$107,578	\$300,000	(\$192,422)
120	2001	01339	Increase Capacity Trapelo Rd #450,	DP	\$2,095,594	\$4,900,000	(\$2,804,406)
120	2001	01340	Trammel Crow, 38 Chauncy St., Bos,	DP	\$110,952	\$121,000	(\$10,048)
120	2001	01345	Reconductor Circuit 456-H3	DP	\$110,260	\$250,000	(\$139,740)
120	2001	01347	BED Gutierrez Construction, Middles	DP	\$362,655	\$189,000	\$173,655
This project was authorized for the incorrect amount. Its states in the original authorization that this project would cost \$277K. This amount was the net of the project costs of \$372.7K and the customer contribution of \$96.1K. The authorized value of \$189K was due to taking the contribution amount against the net of \$277K versus the \$372.7K. The caused this authorization to be approved with a lower funding request than what the original PAD stated. This project had cost overruns of \$86.1K above what was stated on the original authorization. These overruns are due to external labor of \$40.5K being higher than anticipated. This was due to a railroad crossing diversion that was not part of the original estimate and additional civil costs. The remaining \$45.6K is due to material costs being higher than designed. The variance with materials is due to installing an additional 13 poles, 400 feet of cable, and ancillary equipment which was not part of the original estimate.							
120	2001	01348	Increase Capacity Needham Sta # 148	DP	\$1,333,915	\$1,250,000	\$83,915
120	2001	01349	Purchase of Tools Field Support	GP	\$269,271	\$105,000	\$164,271
This spending was done under a blanket.							
120	2001	01402	Mobile Voice Communication Project	GP	\$24,900	\$3,000,000	(\$2,975,100)
120	2001	01403	Purchase of Oracle Software license	GP	\$807,318	\$1,200,000	(\$392,682)
120	2001	01407	Mainframe Re platform project	GP	\$62,801	\$750,000	(\$687,199)

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120	2001	01411	Summit Infrastructure (BECO child p	GP	\$1,142,264	\$850,000	\$292,264
120	2001	01434	Integration Software/WebMethods Lic.	GP	\$400,000	\$400,000	\$0
120	2001	01901	BEC Co Hand Held Meter Reading Device	GP	\$789,521	\$850,000	(\$60,479)
120	2001	01902	Boston Edison Resoruce Management S	GP	\$577,527	\$800,000	(\$222,473)
120	2001	01990	Summit facility capital costs not c	GP	\$6,159,364	\$6,570,000	(\$410,636)

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120	2001	01991	BECo child project for Facilities C	GP	\$4,191,554	\$2,250,000	\$1,941,554
Changes to the project scope and resulting budget variances occurred as follows:							
<p>BECo. Waltham Service Center: Determined to be a better, central location for the Field Engineering Offices, Labs and Storage. Meter Technical (Lab/Offices) Operations that were originally planned to be relocated here were determined to be more efficiently located adjacent to the Meter Training Operations and at the Boston / Mass. Ave. Service Center. Additional design (\$35,000) and construction (\$82,000) required in office and warehouse space to create office, testing and temperature controlled storage areas meeting the specific operational requirements. This increased the total cost at BECo. Waltham Service Center by \$117,000;</p> <p>Expected total spending for this project is \$4.2M</p> <p>BECo. Boston / Mass. Ave. Service Center: Additional design and construction administration fees resulting from modifications required to the Transformer Shop/High Voltage Test Area when construction of a new Fabrication Shop was eliminated, addition of the Meter Lab/Training to the facility and to address poor soil conditions; increased costs by \$85,000; General Contractor construction supervision fees for construction of the Fabrication Shop, Transformer Shop/High Voltage Testing Area, Meter Lab/Training Area and Sitework; increased costs by \$395,000; Fabrication Shop reassessed after design completed and determined to be no longer required; construction cancelled; decreased construction costs by \$565,000; Transformer Shop/High Voltage Testing was originally intended to be constructed within the canopy attached to the warehouse; operational requirements required demolition of the canopy, construction of addition along side and additional construction within the warehouse; increased construction costs by \$733,000; Foundations for the Transformer Shop/High Voltage Testing Area required piles, thicker slabs and grade beams due to poor soil conditions and loading requirements of the operations; increased construction costs by \$300,000; Construction of building addition for Transformer Shop/High Voltage Testing Area required a site survey; poor soil conditions required soils reports, inspection and testing services; increased construction costs by \$100,000; Boston / Mass. Ave. Service Center determined to be a better, central location for the Meter Lab/Offices than Waltham; best location for Meter Training is adjacent to Meter Lab to maximize efficiency of both operations, therefore Meter Training was relocated to the Boston / Mass. Ave. Service Center instead of Plymouth as originally planned; increased construction costs by \$490,000 at Boston/Mass Ave, decreased construction costs by \$574,000 at Plymouth; Transformer Shop/High Voltage Testing Area required additional sitework including new electrical service for building and testing operations, larger reinforced concrete pads for equipment storage, on site regrading of all excavated soil and installation of a hazardous waste tank including a reinforced concrete pad on piles and protective canopy; increased construction costs by \$285,000; Total costs at the BECo. Boston / Mass. Ave. Service Center increased by \$1,823,000</p> <p>BECo. Somerville Service Center: Additional design and construction administration fees to address final operational requirements and permitting requirements as noted below increased costs by \$35,000; Extensive renovations required in the office area to accommodate operations and in locker/shower area and adjacent storage area to create separate storage areas for Gas Operations; increased construction costs by \$205,000; Fire detection system upgrades to entire building required by the Somerville Fire Department to obtain building permit; increased construction costs by \$151,000; Additional site work required in parking areas to provide adequate parking, materials storage and installation of fencing and gates to provide security; increased construction costs by \$90,000; Additional security cameras and equipment required to cover new areas constructed; increased construction costs by \$50,000; Installed modular furniture in renovated office area to meet company's new office standards; increased costs by \$20,000; Total costs at the BECo. Somerville Service Center increased by \$551,000</p> <p>Commonwealth Electric Plymouth Service Center: Best location for Meter Training area determined to be at the Boston Service Center; Rubber Glove Testing is only operation relocated to Plymouth. Total costs at the Plymouth Service Center decreased by \$574,000</p>							
120	2001	01992	BECO GAS BOY - CHILD PROJECT	GP	\$113,434	\$150,000	(\$36,566)

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120	2002	02145	Convert entire 17N29	DP	\$889,254	\$300,000	\$589,254
This project realized additional work as a result of converting this circuit. We had to replace additional conduit and manholes that were not part of the original authorized and designed estimate. This work was done by external labor, which increased costs. Internal labor costs were higher than designed do to overtime not being factored into the design estimate. Many of these overtime dollars where as a result of permit work after business hours. This is done as to not affect the customer during their operating day.							
120	2002	02148	Win - Replace Direct Buried Cable -	DP	\$428,871	\$400,000	\$28,871
120	2002	02149	Boston University - New indoor Trac	DP	\$197,962	\$150,000	\$47,962
An authorization for \$198K is being requested to extend two 13.8kV DSS lines to supply a new Boston University indoor track facility being constructed on Ashford Street in Brighton. This new facility is being constructed so the existing facility, the former Commonwealth Armory, can be razed to make room for a new Arena and Recreation Center (Project 02366.) The lines will be used to supply a new customer station with loadbreak and power fused and a load of approximately 900 kVA. The extension of the DSS lines 509-91 and 233-90 requires the installation of two new manholes, 700 feet of new duct line and 3400 feet of 3-500 MCM 15 kV cable. Line 508-91 will be the normal supply with 233-90H operating normally open as a backup. This is the first series of four projects to provide service to the new BU facilities. An original authorization for 150K was approved on 10/24/02. A supplement for 48K is requested to cover cost overruns consisting of conduit invoice charges of \$35K - the project had night time work restrictions and congestion of utilites in the street. The balance of the overrun is associated with labor and material charges for cable and splicing work associated with the installation of 17 sections of 15kV cable which had to be done mainly on off hours due to traffic and parking restrictions.							
120	2002	02151	Convert entire 17N33	DP	\$1,374,188	\$450,000	\$924,188
This project ran into many issues beyond the authorized amount. The external labor (invoice) costs were higher than anticipated due to replacing more ducts than what was designed. This was due to collapsed and blocked ducts. NSTAR labor estimate was too low and overtime was not included in the estimate. Overtime costs were approximately \$90K.							
120	2002	02152	Convert entire 26N33	DP	\$490,909	\$450,000	\$40,909
120	2002	02158	Improve Reliability 250-1N81H	DP	\$328,292	\$400,000	(\$71,708)
120	2002	02161	Bed - Replace Direct Buried Cable -	DP	\$41,607	\$600,000	(\$558,393)
120	2002	02166	Sta 106 Capacity & Reliability Upgr	DP	\$659,081	\$780,000	(\$120,919)
120	2002	02169	Second Chelsea Creek Crossing	DP	\$236,972	\$225,000	\$11,972
120	2002	02177	WAL - Act Of Public Authority - Win	DP	\$131,867	\$702,000	(\$570,133)
120	2002	02178	Increase cap. SNV480, Newbury St.,B	DP	\$87,386	\$100,000	(\$12,614)
120	2002	02180	Increase Cap. of SNV46, Newbury St.	DP	\$256,238	\$110,000	\$146,238
A supplemental authorization for \$256.2K is being requested for the following overruns. This project was approved prior to final design. Once this project was designed, it had a project cost of \$197.9K, which comprised of \$138.2K of materials and \$59.7K of labor. Actual spending was \$116.7K of materials, \$87.6K of labor, and \$50.4K of contractor labor. This project was designed to be done internally so the contractor labor was an extra cost to the project. Also our labor estimate was low versus what it costs to complete the scope of work. The remaining costs of \$1.5K were for small tools. Contractor labor was needed to complete the work by the timeframe committed to the customers of Newbury Street.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2002	02181	Est SNV233, Newbury St@Dartmouth St	DP	\$348,732	\$240,000	\$108,732
This project was originally authorized prior to final design. The overrun consists of budgeting and estimating this job to be done on straight time. NSTAR total labor spent was \$95K versus a design estimate of \$42K. The labor overrun of \$53K is due to overtime (\$35K) not being factored into design estimate and more internal labor (\$18K) being needed complete this job. The remaining overrun is within contractor labor for approximately \$55.7K. Field change orders arose, which were driven by rebuilding manholes and existing vaults prior to installing the new assets. These activities were not factored into the original design estimate.							
120	2002	02194	Sta 250 & 329 Circuit Breaker Repla	DP	\$2,547	\$700,000	(\$697,453)
120	2002	02195	Relieve Chelsea-East Boston Region	DP	\$689,535	\$400,000	\$289,535
This project was approved prior to final design. This project performed additional work beyond the original scope within authorized PAD. In addition to installing a new circuit breaker and switches, we replaced the bushings, install CT's, and circuit board sections for transformer 110C. This additional work resulted in invoice overruns for rigging and environmental expenses. The labor to replace these units was not factored into the budget estimate. The overrun for this extra work for transformer 110C was \$281.5K. The remainder of the overrun (\$18.2K) was against the original scope of work. This was made of overtime costs that were not funded to the levels that were worked. Expected total spending for this project is \$700K							
120	2002	02196	Convert section 293-03, South Bosto	DP	\$160,397	\$200,000	(\$39,603)
120	2002	02197	Convert sections 139-08, 321-03, SB	DP	\$1,166,038	\$780,000	\$386,038
A supplemental authorization of \$1,166K is being requested for the following cost overruns. We authorized this project prior to final design. We under estimated the time it would cost to complete this project. This can be seen within the Labor overrun of \$349K which \$134K of this total is associated in overtime costs, which are not factored into the design estimate. Invoice costs were over by \$105K, which is offset by material costs being under by (\$68K).). These overtime charges were a result of permit work which required work to be performed during non-business hours in order to not inconvenience local customers. The straight time labor overrun was due to incorrectly estimating how much internal labor would be required to complete this project.							
120	2002	02198	Convert Section 143-05, Roxbury	DP	\$747,645	\$400,000	\$347,645
This project was authorized prior to final design. NSTAR labor was over by \$165K versus estimated amount. Approximately \$124K of this labor overrun was overtime which is not factored into the design estimate. Invoicing overrun of \$104K was higher than anticipated based on environmental clean-up activities within manholes and cable installation. Expected total spending for this project \$752K							
120	2002	02199	Transfer SE Spot Network from Sta 1	DP	\$112,834	\$360,000	(\$247,166)
120	2002	02200	Convert Section of 396-08, 4kV Mode	DP	\$608,576	\$490,000	\$118,576
The overrun consists of larger conduit work than what originally in the scope of work. Also installing switches was not part of the original scope of the job. Both of these items make up the variance.							
120	2002	02201	Relieve the Boston Medical LG, Bost	DP	\$308,989	\$260,000	\$48,989
120	2002	02203	Reconductor Circuit 106-H4	DP	\$12,382	\$350,000	(\$337,618)
120	2002	02204	Convert Section 5203, Roxbury	DP	\$6,467	\$480,000	(\$473,533)
120	2002	02205	Convert Section 5210, Roxbury	DP	\$16,983	\$280,000	(\$263,017)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2002	02207	Reconfigure New England Medical & H	DP	\$453,793	\$450,000	\$3,793
120	2002	02208	Relieve South Postal Annex LG	DP	\$225,795	\$400,000	(\$174,205)
120	2002	02209	Relieve the Park Plaza Line Group,	DP	\$491,191	\$485,000	\$6,191
120	2002	02211	Convert Section 139-01, 4kV Moderni	DP	\$1,018,738	\$450,000	\$568,738
This project was authorized prior to final design and performing a field lookup. We originally authorized this project only to do a portion of the circuit. We ultimately converted the entire circuit. The labor overrun was \$259.7K. The original authorized amount assumed doing the work in-house. We spent approximately \$140K worth of overtime that was not factored into either the budget or design estimate. The material estimate for this job was less than the design estimate. Also, contractor labor was not factored in the original authorized amount. We used the contractors to install conduit, pull cable, setting poles, and environmental issues.							
120	2002	02216	New Duct, Summer Street Bridge Sout	DP	\$476,388	\$450,000	\$26,388
120	2002	02217	Convert Circuit 4308, Dor	DP	\$613,549	\$600,000	\$13,549
120	2002	02220	New Station 329 Duct Bank - Congest	DP	\$4,155,311	\$4,000,000	\$155,311
120	2002	02221	Convert 4kV UG Cir to 13.8kV Loop,	DP	\$566,604	\$500,000	\$66,604
There was a greater amount of conduit work (duct bank and manholes), than was originally authorized. This was due to unanticipated rebuilding and installation of manholes along Franklin and Braintree Streets in Brighton.							
120	2002	02222	Convert 506-06 & 506-12	DP	\$1,743,985	\$1,600,000	\$143,985
120	2002	02223	Convert Centre Street Area	DP	\$1,257,633	\$1,200,000	\$57,633
An authorization for \$1,638,000 is requested to convert approximately half of the connected load of circuits 396-03 and 396-06 to 13.8 kV operation. The conversion will take place along South Huntington Ave. and Centre Street and Perkins Street in Roxbury and Jamaica Plain. This area is fed primarily with 4kV underground distribution equipment from Station 396 in Roxbury. Approximately 5,100 kVA of connected load will be converted to a 13.8kV open loop system in order to improve service reliability to customers in the area. This work will reduce the number of outages to all customers of the affected circuits. In addition, when outages do occur the outage duration will be reduced by the use of fault indicators and load break elbows. The conversion of this load to 13.8kV will reduce load levels on 4kV station 396 as well as the 24kV DSS circuits that supply the station. A supplemental authorization for \$438K is being requested for the following cost overruns. This project was authorized prior to final design. An invoicing overrun was higher than anticipated based on digging, environmental clean-up activities within manholes and cable installation within manholes. There was also a greater than anticipated scope on conduit work.							
120	2002	02224	Convert Washington Sq Area 4kV to 1	DP	\$1,256,034	\$1,150,000	\$106,034
120	2002	02225	Station 496 New Duct Bank	DP	\$429,853	\$350,000	\$79,853

The supplement is requested for \$429,000 due to the following:

The project was done almost entirely by outside contractors. Costs were higher than expected because we asked for a compressed installation schedule so that we could use the duct bank to provide relief to area circuits and the contractor encountered ledge in the area.

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2002	02226	Relieve Line 13-1416XY - Establish	DP	\$323,772	\$500,000	(\$176,228)
120	2002	02270	Westwood High School Supply	DP	\$76,476	\$210,000	(\$133,524)
120	2002	02274	New K Street Sub -Distrib Infrastru	DP	\$2,702,996	\$2,900,000	(\$197,004)
120	2002	02287	Bos Expand Hazeltine Remote Monitor	DP	\$757,680	\$330,000	\$427,680
The original funding request was for 100 Hazeltine transmitters to be installed, the program was expanded to approximately 155 installations and the cost per Hazeltine unit was significantly greater than estimated. Expected total spending for this project is \$785K							
120	2002	02290	Sudbury Sta Replace	DP	\$1,811,265	\$2,299,300	(\$488,035)
120	2002	02296	Stations 12 & 53 Network Vault Prot	DP	\$405,013	\$400,000	\$5,013
120	2002	02302	Improve Protection (install neutral	DP	\$77,097	\$200,000	(\$122,903)
120	2002	02303	Convert Coolidge Corner-Beacon St	DP	\$842,158	\$1,700,000	(\$857,842)
120	2002	02308	Procure 140MVA Power Transformer	DP	\$1,584,448	\$1,400,000	\$184,448
The actual manufacturer bids to purchase the spare power transformer were higher than estimated, the transformer purchased from ABB was the lowest cost transformer available that met operations specifications.							
120	2002	02309	Bed - Underground existing overhead	DP	\$264,180	\$240,000	\$24,180
120	2002	02310	Walpole Water Dept.	DP	\$108,992	\$200,000	(\$91,008)
120	2002	02317	Upgrade for Mystic, Congress and Su	DP	\$798,810	\$602,000	\$196,810
An authorization in the amount of \$800K is being requested to capitalize and complete work in the Mystic, Summer Street & Congress Street Tunnels. This project will upgrade/replace existing power supplies, controls, ventilation, lighting and pumping systems in all three tunnels. During a recent heat wave Mystic Tunnel flooded when Station 250 deluge systems discharged high volumes of water for cooling station transformers. Fault locating and critical cable repairs in the tunnel were delayed until tunnel power could be restored and the tunnel could be illuminated, pumped and ventilated. The tunnel upgrades are necessary to maintain OSHA requirements for ventilation and lighting. The objective of this project is to upgrade / replace all tunnel systems to allow immediate entry for cable repairs while maintaining safe working conditions for crews. The original authorized amount of \$602K was approved on December 16, 2002. The overrun for this project - \$198K is attributed to contractor field changes due to the extreme working conditions and the instability of the tunnels areas in question.							
120	2002	02337	Relieve River Street Line Group	DP	\$124,448	\$125,000	(\$552)
120	2002	02345	Transformer LTC Dielectric Monitors	DP	\$124,035	\$120,000	\$4,035
120	2002	02347	Establish SNV198,Cross St,Bos Sta&	DP	\$142,526	\$308,000	(\$165,474)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2002	02350	New K Street Sub 75MVA w/permittin	DP	\$16,764,638	\$16,400,000	\$364,638
120	2002	02354	Convert Circuit 23N28X	DP	\$791,931	\$600,000	\$191,931
Project originally scheduled to be overhead installation, but the town of Brookline rejected proposed overhead path. Engineering revisions forced rights process to start over. Underground installation was extremely labor intensive due to lack of duct space, which in turn led to multiple off hours planned outages in order to install new duct bank. Also, conduit installation for Middlesex Road, estimated at \$225,000 was not included in original estimate. Expected total spending for this project is \$1.3M							
120	2002	02365	Increase Tie capacity to Station 39	DP	\$264,187	\$190,000	\$74,187
Project was approved prior to final design. The project had a fully design estimate of \$264.2K comprised of \$40K in labor and \$224.2K in materials. Actual spending came in at \$100.2K in labor, \$19.2K in external labor (invoice costs), and \$144K in materials for a total of \$264.2K. The labor estimate for this job was too low and we did not need all the materials that were identified when this job was designed. The added labor costs was due to estimates for acceptance testing being to low.							
120	2002	02368	BU Life Science Building	DP	\$268,333	\$200,000	\$68,333
The additional \$68,333 in authorized spending required by this project was due primarily the additional costs associated with the conduit installation work completed by the outside contractor vs. being done by NSTAR personnel as originally proposed. The contract to install the conduit beneath the MBTA track crossings was further delayed due to MBTA schedules and permit restrictions.							
120	2002	02369	Mass Biotech Laboratories	DP	\$787,298	\$210,000	\$577,298
An Authorization for \$787,298 is requested to extend two 13.8kV DSS lines to supply the new Massachusetts Biologic Laboratories to be constructed on the grounds of the former Boston State Hospital on Walk Hill Street in Mattapan. The original estimate for this project was estimated at \$210,000 and was approved on October 2, 2003. The original authorization was created with an estimated customer contribution of \$736,021. Presently the customer has a Lookback Agreement with NSTAR. Should they meet the additional load requirements in this agreement, the customer will be entitled to a refund of \$692,779.							
120	2002	02372	Webster Street Hotel	DP	\$588,712	\$400,000	\$188,712
The overrun for this project is attributed to additional conduit work that was required that was not part of the original estimate. The additional conduit work done by contractor labor was for approximately \$140K between the Harvard and Beacon Street manholes. The other \$48K was associated with small straight time labor overruns, unfunded overtime labor, and small material charges that were not anticipated.							
120	2002	02373	Lex Sta 34 Replace failed 14kV tran	DP	\$621,595	\$435,000	\$186,595
This project was a result of an emergent system event. This project was originally authorized prior to being fully field engineered and designed. This overrun is attributed to larger material and contractor labor costs than was originally estimated.							
120	2002	02377	Bos Establish SNV 505 Boylston St	DP	\$97,280	\$250,000	(\$152,720)
120	2002	02380	Arl - Rebuild/upgrade Arlington ele	DP	\$654,422	\$5,500,000	(\$4,845,578)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2002	02415	BEC Co CIC Implementation Parent 250	GP	\$4,598,385	\$1,894,921	\$2,703,464
The Initial PAD for this project was based on a Rough Order of Magnitude (ROM) cost estimate. The Final revised PAD includes a cost increases for system integration reflecting a more refined project scope and the following scope changes: Service Order and Daily Batch Updates, Notes Renumbering, Vacant Accounts, Sanitary Code Violations, Service Continuation, Abend Changes, Read in/Read out, Party relationship, BAAPL changes for Daily Update, RAC implementation, Control and Error Handling and Resolution of the Exception Logger Variable Errors. Additional external services costs not previously identified include performance, stress and acceptance testing as well as an overall project assessment from an independent provider. Additional project hardware and software costs are required to insure cost saving by providing necessary response times, redundancy for reliance and storage requirements.							
120	2002	02419	BEC Co H/W cic implementation parent	GP	\$891,668	\$773,719	\$117,949
The Initial PAD for this project was based on a Rough Order of Magnitude (ROM) cost estimate. The Final revised PAD includes a cost increases for system integration reflecting a more refined project scope and the following scope changes: Service Order and Daily Batch Updates, Notes Renumbering, Vacant Accounts, Sanitary Code Violations, Service Continuation, Abend Changes, Read in/Read out, Party relationship, BAAPL changes for Daily Update, RAC implementation, Control and Error Handling and Resolution of the Exception Logger Variable Errors. Additional external services costs not previously identified include performance, stress and acceptance testing as well as an overall project assessment from an independent provider. Additional project hardware and software costs are required to insure cost saving by providing necessary response times, redundancy for reliance and storage requirements.							
120	2002	02430	Relieve circuit 488-H1	DP	\$403,772	\$400,000	\$3,772
120	2002	02437	Install new circuit to relive 320-H	DP	\$747,976	\$800,000	(\$52,024)
120	2002	02438	Reconfigure circuits 351-03 and 351	DP	\$784,989	\$450,000	\$334,989
This project was authorized prior to final design. The NSTAR labor estimate was low and did not factor in overtime to its total. Overtime costs of \$174K are part of the labor overrun. The remainder of the overrun is straight time labor of \$160K.							
120	2002	02440	Relieve circuit 17-14	DP	\$265,208	\$150,000	\$115,208
This project was authorized prior to final design. The budget estimate was based on \$50/ft but this job actually had a design cost of \$ 201K. The overrun versus the fully designed cost was \$64.2K. The overrun consists of contractor labor being \$64.2K over the estimate labor for this job. The overrun was due to increased costs of installing cable and conduit as well as extra oil remediation costs							
120	2002	02454	BEC Co peoplesoft upgrade - parent#25	GP	\$427,417	\$149,537	\$277,880
The original estimate was for the upgrade only. To maximize the benefit of the upgrade and to take advantage of a special software purchase offer by PeopleSoft, the PeopleSoft Time and Labor and E-collaborative Application modules are added to the scope of this project.							
120	2002	02465	Operating Model Integration BECo Ch	GP	\$1,233,808	\$1,361,960	(\$128,153)
120	2002	02473	BEC Co supplier payment enhancement p	GP	\$904,921	\$1,138,500	(\$233,579)
120	2002	02477	BE sw remote network access(25039)	GP	\$40,114	\$129,088	(\$88,974)
120	2002	02501	Real Estate - Land swap (Atlantic A	GP	\$1,701,780	\$4,515,078	(\$2,813,298)
Total expected spending for this project is \$4.9M							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2002	02505	real estate - summit building purch	GP	\$15,316,019	\$40,635,702	(\$25,319,683)
Total expected spending for this project is \$15.3M							
120	2002	02704	Mass Ave Master Plan	GP	\$155,953	\$300,000	(\$144,047)
120	2002	02706	Bell & Howell 3500 Inserter	GP	\$288,200	\$300,000	(\$11,800)
120	2002	02754	BE h/w codis project parent#25031	GP	\$144,768	\$132,152	\$12,616

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2003	03101	Relieve Sharon Circuits	DP	\$1,013,502	\$750,000	\$263,502
Original PAD was authorized based upon an Engineering estimate of \$750K. The fully designed estimate for the job was \$880K. Actual spending exceeded this amount due to awarding project to contractors and extra costs associated with conduit coming out of Station 470, Canton. The extra conduit and contractor costs were \$145K and additional material costs were \$118.5K.							
120	2003	03102	Increase Capacity Circuit 65-H1	DP	\$68,933	\$100,000	(\$31,067)
120	2003	03109	Relieve Circuit 211-07	DP	\$131,807	\$120,000	\$11,807
120	2003	03131	Relieve miscellaneous 4kV Circuits	DP	\$266,539	\$225,000	\$41,539
Additional funding was required to complete this work due to the prices received from the contractors being higher than original estimated amounts							
120	2003	03132	Relieve Station 106, Andrew Square	DP	\$197,927	\$300,000	(\$102,073)
120	2003	03133	Relieve Circuit 250-H3	DP	\$357,198	\$270,000	\$87,198
Additional funding was required to complete this work due to the prices received from the contractors being higher than original estimated amounts for internal labor							
120	2003	03134	Relieve Circuit 10-H1	DP	\$281,184	\$445,000	(\$163,816)
120	2003	03135	Relieve Circuit 467-H4	DP	\$121,217	\$175,000	(\$53,783)
120	2003	03161	Relieve Circuit 34-04	DP	\$91,430	\$150,000	(\$58,570)
120	2003	03173	Install 70 MVARs of Distr Capacitor	DP	\$206,088	\$260,000	(\$53,912)
120	2003	03174	Woburn Sta # 375 - Install 3rd 115/	DP	\$3,120,328	\$2,400,000	\$720,328
The Distribution Station (Child Auth: 03174) over-run of \$720K is due to higher internal and external labor costs than anticipated. This project was authorized prior to being final design. The internal labor over-run of \$475.8K was due to overtime cost of \$77.3K which was not part of the original estimate and straight time labor of \$398.5K being higher than estimated. This overrun was due to installing, dressing, and testing the new transformer. The external labor over-run of \$244.2K was due to \$50K of additional civil costs and \$194.2K of assembly costs being higher than estimated.							
120	2003	03179	Increase Maynard Sta #416 Transf Sw	DP	\$467,412	\$600,000	(\$132,588)
This project was authorized under its Parent 25066 authorization. This job did not exceed its authorized value. The components of the job did see some spending variations compared to their individual portion of the parent authorized value. The station portion of the job had an estimated value of \$100k versus spending of \$173K. This \$73K overrun was a result of higher external labor costs than anticipated. These external costs were a result of more station work needed to install cubicle space for the new circuit which was being installed outside the station. This was offset by a under-run for the street portion of the job. The street portion of the job was estimated at \$600K versus spending of \$467.4K for an under-run of \$132.6K. This project as a whole was under its authorized value by \$ 59.5K.							
120	2003	03182	Install Nitrogen Generators - vario	DP	\$166,815	\$210,000	(\$43,185)
120	2003	03185	Station 240, Framingham - Replace X	DP	\$4,138,388	\$4,800,000	(\$661,612)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2003	03192	Relieve BU Medical Line Group	DP	\$619,952	\$430,000	\$189,952
The overrun consists of revised engineering estimates for labor to complete this project not coming to fruition. The original authorization stated that this project would cost approximately \$700K. Engineered scope changes would allow for this project to be significantly less while still achieving operational objectives. The project achieved its operational objectives but it did not achieve its financial objectives set forth in the revised scope. Project costs approximately \$620k, which was mainly due to increased internal, and contractor labor to complete this work.							
120	2003	03195	Reconductor DSS Line 329-1N40H	DP	\$536,988	\$415,000	\$121,988
This project was authorized without any conduit work. Once the project began and field inspections of the underground ducts it was determined that a good portion of these conduit ducts needed to be replaced. This was not factored into the design estimate. The vast majority of the variance is the result of the cost of the contractor labor being greater than the Passport's labor cost estimate. Work order 1273994 task 15 has \$ 119.8K of costs associated with conduit work with \$0 as a design estimate. The remaining overrun is for small tools that were charged against the project.							
120	2003	03198	Relieve Jamaica Plain Line Group	DP	\$177,882	\$435,000	(\$257,118)
120	2003	03199	Relieve DSS Line 250-1N90H	DP	\$361,759	\$400,000	(\$38,241)
120	2003	03201	Relieve the Charlestown Line Group	DP	\$306,080	\$490,000	(\$183,920)
120	2003	03204	Reconductor DSS Line 548-92H	DP	\$465,317	\$390,000	\$75,317
The original estimate was prepared and authorized prior to field look-up. Field conditions were much different than existing company records indicated. The scope was increased as we encountered problems with manhole availability, requiring rebuilding as well as cable reorganization.							
120	2003	03206	Relieve the Raytheon Line Group (51	DP	\$855,275	\$1,100,000	(\$244,725)
120	2003	03207	Relieve the Waltham-2 Line Group	DP	\$264,842	\$400,000	(\$135,158)
120	2003	03208	Relieve Thermal Loading at Station	DP	\$313,284	\$425,000	(\$111,716)
120	2003	03210	Distribution Automation project - N	DP	\$119,473	\$150,249	(\$30,776)
120	2003	03217	Arch St Tower - 33 Arch St, Boston	DP	\$243,793	\$535,000	(\$291,207)
120	2003	03218	Millenium Partners - 1 Charles St,	DP	\$123,064	\$360,000	(\$236,936)
120	2003	03219	Liberty Tree LLC - 660 Wash. St, Bo	DP	\$26,971	\$226,000	(\$199,029)
120	2003	03220	Druker Co - 505 Tremont St, Boston	DP	\$294,156	\$465,000	(\$170,844)
120	2003	03221	Davis Co - 161 Cambridge St	DP	\$208,417	\$570,000	(\$361,583)

[illegible]

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2003	03266	Convert Section 321-05, 483-01, Dor	DP	\$851,268	\$720,000	\$131,268
The cost overruns are due to environmental clean-up costs, additional conduit for collapsed and blocked ducts, and generator costs which were all not factored into the original design and estimate. Overtime costs were higher than anticipated due to performing this work during non-business hours in order to avoid impact to the customer during normal business operations. These added overtime costs were greater than estimated.							
120	2003	03280	Rebuild URD - Rainbow Pond Drive	DP	\$372,158	\$435,000	(\$62,842)
120	2003	03296	New K Street Distribution Conduit,	DP	\$2,546,279	\$1,350,000	\$1,196,279
The additional \$1,196,279 in authorized spending required by this project was due primarily to exclusion in the original estimate of the cable and splicing work associated with the installation of (5) new 15kv DSS Lines and 100 Sections of Cable installed to feed the new Boston Convention & Exhibition Center.							
120	2003	03297	STN Relieve The Stoneham Lline Group	DP	\$0	\$180,000	(\$180,000)
120	2003	03310	Increase Distr Capacity @ Sta 106 (DP	\$166,900	\$400,000	(\$233,101)
120	2003	03320	Sudbury Sta 342 - Replace Xfmrs	DP	\$4,650,513	\$4,664,000	(\$13,487)
120	2003	03321	Install New Xfmr at Station 375 (St	DP	\$835,093	\$750,000	\$85,093
The Distribution Street (Child Auth: 03321) over-run of \$85K is due to higher internal labor than anticipated and environmental costs. This project was authorized prior to being final design. The internal labor over-run was due to overtime cost of \$26.5K which was not part of the original estimate and straight time labor of \$25K being higher than estimated. The environmental costs of \$33.5K were never included in the original estimate. These costs were a result of clean-up costs with the new installation of a manhole which housed the new distribution circuit.							
120	2003	03327	Reconductor 71-1N31	DP	\$103,355	\$110,000	(\$6,645)
120	2003	03328	Reconductor 492-1N32N	DP	\$125,425	\$135,000	(\$9,575)
120	2003	03330	Increase 15kV Distribution Capacity	DP	\$244,612	\$180,000	\$64,612
The additional \$64,612 in authorized spending required by this project was due primarily to an underestimation of company resources required to complete the work. The Engineering estimate for this project assumed 1708 man-hours with an estimated labor cost of \$87,147. The actual labor hours totaled 10,343 and actual labor costs were \$118,538.							
120	2003	03332	Distribution Automation - Somervill	DP	\$271,797	\$639,385	(\$367,588)
120	2003	03333	Distriibution Automation - Waltham	DP	\$613,880	\$1,321,285	(\$707,405)
120	2003	03334	Distribution Automation - Walpole C	DP	\$520,360	\$976,619	(\$456,259)
120	2003	03335	Distribution Automation - Framingha	DP	\$633,699	\$1,040,186	(\$406,487)
120	2003	03347	Distr Automation - Computer Hardwar	GP	\$166,147	\$797,274	(\$631,127)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2003	03352	Colburn Street Substation-Distribut	DP	\$6,361,228	\$14,923,469	(\$8,562,241)
120	2003	03355	Colburn Street Substation-Distribut	DP	\$15,060,568	\$16,704,965	(\$1,644,397)
120	2003	03388	Boston Univ - 580 Comm Ave, Boston	DP	\$111,886	\$152,000	(\$40,114)
Child Auth 03388: Distribution Street Child Auth 03389: Distribution Station A supplemental authorization for \$260.5K is being requested for the following cost overruns. This project was authorized for both the station and street portions of the job as well as the system development infrastructure that would benefit the surrounding area. The overrun of \$108.5K is due to internal labor being greater than anticipated. Internal labor over-run was \$46.6K. This is due to \$20K of overtime costs that were not part of the estimate and \$26.6K of straight time labor which was due to additional labor for transformer testing within the new vaults. The remainder of the overrun of \$61.9 was for additional small material costs for the system development portion of the job totaling \$13.5K and external labor costs of \$48.4K for additional conduit installation and rigging costs.							
120	2003	03391	Academy Homes II, Wash st, Roxbury	DP	\$389,220	\$370,000	\$19,220
120	2003	03393	One Brigham Circle, Roxbury	DP	\$175,383	\$175,000	\$383
120	2003	03394	Nazing Apartments, Nazing Ct, Roxbu	DP	\$237,674	\$175,000	\$62,674
Conduit installation actual spending was \$18,000 over projected estimate. Also additional cable removals to free up duct space and general poor duct / manhole conditions resulted in cable & splicing overruns of approximately \$45,000.							
120	2003	03396	Merck 33 Louis Pasteur Ave, Roxbury	DP	\$382,970	\$360,000	\$22,970
120	2003	03398	Convert 4kV Circuit 211-08 Winche	DP	\$1,295,286	\$1,300,000	(\$4,714)
120	2003	03405	2003 M3i BE SW parent (25025)	GP	\$1,997,739	\$1,807,052	\$190,687
Parent project 25025 was authorized in total for \$3,310,100 with total actual spending of \$3,431,260 so no supplement is required. The child project numbers are 03426, 03427, 03428, 03405, 03406, & 03407. Expected total spending for this child authorization is \$2M of the total \$3.4M							
120	2003	03412	Premise BE sw (25048)	GP	\$98,957	\$180,600	(\$81,643)
120	2003	03416	server lifecycle BE HW	GP	\$590,673	\$266,875	\$323,798
The actual capital spending was \$924,279 for an overrun of \$537,279. The approved funding was meant to support just the planned Lifecycle spending for that year and the additional amount requested was needed to support the hardware and software that was specific to the XP Upgrade project. The original estimate was prepared to include Lifecycle funding for the Distributed Systems, the Mid-Range Systems, and the Network Infrastructure. The new funding was to support the upgrade to the desktop operating system (Windows NT) used on all the desktops within NSTAR. This request included new servers for the Novell environment, professional services for planning and implementation, new OS licenses for Windows XP, and new application license software.							
120	2003	03420	security monitoring BE SW (25050)	GP	\$77,985	\$144,126	(\$66,141)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2003	03426	2003 m3i BE hw parent (25025)	GP	\$140,166	\$286,586	(\$146,420)
Parent project 25025 was authorized in total for \$3,310,100 with total actual spend of \$3,431,260 so no supplement is required. The child project numbers are 03426, 03427, 03428, 03405, 03406, & 03407.							
120	2003	03429	security monitoring be hw (25050)	GP	\$219,721	\$111,715	\$108,006
The additional funds needed were a direct result of changes to the NSTAR infrastructure that took place after the estimation of this project cost. These changes resulted in the need to procure additional Intrusion Prevention network sensors.							
120	2003	03437	BE hw SANS storage consolidation pa	GP	\$503,960	\$327,560	\$176,400
The original estimate was prepared prior to the distribution and analysis of an extensive RFP that sought to replace our outdated environment in which we had over 28 terabytes of disk storage that we needed to manage, keep current, and backup. The SAN implementation had 3 primary objectives; centralizing data storage operations and management, administrating all of the storage resources in high-growth and mission-critical environments, and reduce the management costs and complexity of these environments while providing significant technical advantages. The original proposal was priced with the basic SAN hardware and peripherals included but our research and the RFP responses led us to realize that the entire storage environment should be included. This environment consisted of, not just the disks themselves, but also the infrastructure fabric to support the SAN and servers, the tape libraries needed for backup of the SAN and servers, the management tools needed to run the new environment, software and licenses, and lastly professional services to help support the implementation. These were all extensively negotiated by NIS management to archive a total package that was the final product purchased by NSTAR.							
120	2003	03601	TOU AMR Boston Service Territory	DP	\$67,990	\$3,020,000	(\$2,952,010)
120	2003	03902	Millenium Partners - 1 Charles St S	DP	\$1,979,924	\$1,980,000	(\$76)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2004	04142	Saxonville Sta 278 - Convert 278-01	DP	\$40,401	\$850,800	(\$810,399)
120	2004	04155	Extend 240-H2, Natick Line Group	DP	\$92,734	\$429,900	(\$337,166)
120	2004	04157	2004 Framingham Distribution Automa	DP	\$338,253	\$330,196	\$8,057
120	2004	04158	2004 Framingham - Pole Replacement	DP	\$771,845	\$720,380	\$51,465
120	2004	04159	2004 Framingham - Pole Restoration	DP	\$464,670	\$122,694	\$341,976
Pole inspections conducted by contractor labor turned up significantly more poles in the Framingham area that required replacement or restoration. This project is part of Parent authorization 25094 which is authorized for \$4M. Total spending on this parent was only \$2.8M therefore a supplemental authorization is not required. Expected total spending for this child authorization is \$493K							
120	2004	04165	Relieve Circuit 4-H5	DP	\$147,729	\$128,039	\$19,690
120	2004	04169	Reconductor Line 143-75 (Roxbury)	DP	\$224,580	\$103,200	\$121,380
The additional \$122,000 in authorized spending required by this project was due to collapsed ducts that required extensive rebuilding, gas in manholes 1563 and 2630, required to be cleared by Keyspan, and contractor labor which was not included in the original estimate.							
120	2004	04170	Relieve Line 318-173H & 318-129H (S	DP	\$88,510	\$102,700	(\$14,190)
120	2004	04171	Line 311-1403, Move 2 DSS Ckts in A	DP	\$1,011,459	\$806,000	\$205,459
The additional \$206,000 in authorized spending required by this project was due to project construction being delayed by permitting issues with the City of Boston over linkage of this work with the 345KV transmission project. Contractor costs were greater than estimated due to permitting delays requiring the contractor to re-mobilize and the need for environmental services to clean manholes.							
120	2004	04172	Reconductor Line 466-1482H (Dorches	DP	\$279,088	\$246,300	\$32,788
The additional \$33,000 in authorized spending required by this project was due to collapsed ducts that required extensive rebuilding.							
120	2004	04175	DSS Reliability 474-136	DP	\$338,112	\$416,668	(\$78,556)
120	2004	04177	Reconfigure Line 492-1N45N	DP	\$252,642	\$102,700	\$149,942
The additional \$150,000 in authorized spending required by this project was due to the scope of the project changing as the original estimate was based on installing 2000 feet of cable and the actual work requires 3000 feet of cable in 18 sections and new conduit, and duct problems in two sections required additional work.							
120	2004	04178	Reconfigure feeder - Line 53-1N42E	DP	\$110,704	\$102,700	\$8,004
120	2004	04179	Reconfigure/Reconduct Line 492-1N46	DP	\$113,830	\$102,700	\$11,130

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2004	04181	Relieve 492-1N11N	DP	\$27,030	\$103,146	(\$76,116)
120	2004	04183	Reconfigure/Reconduct Feeder, Line	DP	\$189,260	\$161,100	\$28,160
The additional \$28,200 in authorized spending required by this project was due to project construction requiring the contractor, to dig out two blocked ducts which added to the cost of construction.							
120	2004	04184	Reconfigure/Reconduct Line 492-1N25	DP	\$166,171	\$100,000	\$66,171
Project construction required the use of a contractor, not included in the original estimate, additional cost \$16k. Project required 293 more man-hours of labor than the estimate of 1044 man-hours, additional cost \$27k. Project materials were under estimated by \$23k as an additional 950 feet of cable was required for the job. This project was authorized prior to final design. The additional labor was due to the installation and testing of the added cable.							
120	2004	04185	Extend Line 71-1N11/71-1N14 - Recon	DP	\$273,349	\$170,000	\$103,349
The additional \$103,400 in authorized spending required by this project was due to the condition of existing manholes, project construction required the use of a contractor for conduit repair and environmental cleanup that was not included in the original estimate, additional cost for contractors \$99k.							
120	2004	04186	Extend Line 2-1N14	DP	\$147,663	\$200,000	(\$52,337)
120	2004	04188	Line 2-1N33 - Reconduct/Reconfigure	DP	\$266,918	\$150,000	\$116,918
The additional \$117,000 in authorized spending required by this project was due to condition of existing manholes, project construction required the use of a contractors for conduit repair and environmental cleanup that was not included in the original estimate, additional cost for contractors \$33k, project required 651 more man-hours of labor than the estimate of 1449 man-hours, additional cost \$67k, and project materials were under estimated by \$17k as an additional 400 feet of cable was required for the job.							
120	2004	04189	Reconfigure/Reconduct Feeder - Line	DP	\$125,100	\$100,000	\$25,100
Due to condition of existing manholes, project construction required the use of a contractors for environmental cleanup (Clean Harbors) that was not included in the original estimate.							
120	2004	04191	SNV 25, Boston - Install add'l 1000	DP	\$67,195	\$102,700	(\$35,505)
120	2004	04192	Increase capacity - SNV 171, Boston	DP	\$100,633	\$174,725	(\$74,092)
120	2004	04194	UG 4kV Oil Switch Replacements - Ma	DP	\$762,735	\$526,193	\$236,542
The additional \$236,807 in authorized spending required by this project was due to the replacement of UG switches which required significantly more labor hours than estimated.							
120	2004	04197	2004 Mass Ave Distribution Automati	DP	\$2,097	\$331,705	(\$329,608)
120	2004	04198	2004 Mass Ave - Pole Replacements	DP	\$20,104	\$133,534	(\$113,430)
120	2004	04199	2004 Mass Ave - Pole Restorations	DP	\$9,605	\$149,562	(\$139,957)
120	2004	04201	514-1N34N, Reconductor sections of	DP	\$161,355	\$107,980	\$53,375
The additional \$53,420 in authorized spending required by this project resulted because the original estimate did not include the cost of a contractor for conduit duct line repairs.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2004	04242	DSS Reliability 585-114H	DP	\$1,776,017	\$1,195,603	\$580,414
The additional \$580,397 in authorized spending required by this project was due to the prices received from the contractors being significantly higher than original estimated amounts and a portion of the work that was originally not in the design due to changes in scope.							
120	2004	04245	2004 Somerville Distribution Automa	DP	\$186,156	\$356,360	(\$170,204)
120	2004	04246	2004 Somerville - Pole Replacements	DP	\$260,619	\$594,976	(\$334,357)
120	2004	04247	2004 Somerville - Pole Restorations	DP	\$310,140	\$166,578	\$143,562
Pole inspections conducted by contractor labor turned up significantly more poles in the Somerville area that required replacement or restoration. This project is part of Parent authorization 25094 which is authorized for \$4M. Total spending on this parent was only \$2.8M therefore a supplemental authorization is not required.							
120	2004	04249	456-H1 - Circuit Upgrade	DP	\$166,609	\$111,424	\$55,185
The additional \$58,576 in authorized spending required by this project is due to the need for additional time and materials required to complete job. Expected total spending for this project is \$170K							
120	2004	04256	Circuit 470-H10	DP	\$139,418	\$223,900	(\$84,482)
120	2004	04257	2004 Walpole Distribution Automatio	DP	\$133,802	\$267,637	(\$133,835)
120	2004	04258	2004 Walpole - Pole Replacements	DP	\$159,758	\$282,452	(\$122,694)
120	2004	04259	2004 Walpole - Pole Restorations	DP	\$200,691	\$100,309	\$100,382
Pole inspections conducted by contractor labor turned up significantly more poles in the Walpole area that required replacement or restoration. This project is part of Parent authorization 25094 which is authorized for \$4M. Total spending on this parent was only \$2.8M therefore a supplemental authorization is not required.							
120	2004	04270	Circuit 17-04 (Newton)	DP	\$257,305	\$223,900	\$33,405
The additional \$33,400 in authorized spending required by this project is due to the project utilizing a mixed crew of NSTAR labor and contractors that was higher than the labor estimate in the project authorization. Project material costs were higher than estimated. The additional labor cost were due to installing the added materials.							
120	2004	04272	Circuit 391-H9 (Burlington)	DP	\$187,346	\$201,500	(\$14,154)
120	2004	04275	Circuit 148-H1 (Needham)	DP	\$167,421	\$107,500	\$59,921
The additional \$60,000 in authorized spending required by this project is due to the project utilizing 137 additional man-hours for a variance of \$9k, and materials were under estimated by \$52k.							
120	2004	04277	Circuit 148-06 (Newton)	DP	\$73,072	\$102,800	(\$29,728)
120	2004	04280	DSS Reliability 34-1352	DP	\$616,113	\$322,409	\$293,704
The additional \$293,691 in authorized spending required by this project is due to contractor costs being higher than originally estimated; expanded scope and the need for additional materials to replace ducts.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2004	04283	2004 Waltham Distribution Automatio	DP	\$319,521	\$397,094	(\$77,573)
120	2004	04284	2004 Waltham - Pole Replacements	DP	\$184,061	\$393,018	(\$208,957)
120	2004	04285	2004 Waltham - Pole Restorations	DP	\$226,856	\$224,881	\$1,975
120	2004	04308	Convert 4kV circuit 430-04	DP	\$55,408	\$458,534	(\$403,126)
120	2004	04309	Convert 4kV circuit 284-03	DP	\$61,139	\$153,812	(\$92,673)
Contractor costs were higher than originally estimated because of expanded scope with additional conduit and cable installation. Expected total spending for this project is \$370K							
120	2004	04310	Convert 4kV Circuit 67-03	DP	\$316,372	\$295,007	\$21,365
Contractor costs were higher than originally estimated because of expanded scope with additional conduit and cable installation. Expected total spending for this project is \$460K							
120	2004	04311	Convert 4kV circuit 25N30	DP	\$157,231	\$199,996	(\$42,765)
Contractor costs were higher than originally estimated because of expanded scope with additional conduit and cable installation. Expected total spending for this project is \$426K							
120	2004	04312	Convert 4kV Circuit 321-04	DP	\$84,974	\$136,291	(\$51,317)
Increased costs were the result of project scope changes as additional conduit was required exiting manholes 14874 and 14430 due to collapsed ducts (\$50k), and re-roofing of manholes on East Cottage St in Dorchester (\$35k). Expected total spending for this project is \$217K							
120	2004	04313	Convert 4kV circuit 516-07	DP	\$6,704	\$202,001	(\$195,297)
120	2004	04314	Install New Switch at Center Street	DP	\$66,892	\$356,279	(\$289,387)
120	2004	04316	Convert 4kV circuit 323-04	DP	\$138,231	\$169,839	(\$31,608)
120	2004	04329	Replace 4 protectors, TNV 636, Rowe	DP	\$151,251	\$156,168	(\$4,917)
120	2004	04330	Replace 3 protectors, TNV 6145, Int	DP	\$100,325	\$118,310	(\$17,985)
120	2004	04331	Replace 3 protectors, TNV 6106, Int	DP	\$75,692	\$118,310	(\$42,618)
120	2004	04382	Replace Distribution Relays - Sta 5	DP	\$76,704	\$150,000	(\$73,296)
120	2004	04390	Upgrade RTUs at Stations 282 (WAL)	DP	\$95,098	\$202,400	(\$107,302)
120	2004	04412	BE Software scada 25052	GP	\$57,731	\$2,962,525	(\$2,904,794)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2004	04424	Teleforms -- BECo	GP	\$78,374	\$110,416	(\$32,042)
120	2004	04459	Beco sw for perf report automation(GP	\$150,426	\$210,700	(\$60,274)
120	2004	04463	be hw nis lifecycle 04	GP	\$1,045,096	\$943,000	\$102,096
This project had mis-charges totalling \$776K. This project was authorized under Parent project 25082 for \$1.38M. After the correction of the mis-charges of \$776K this parent authorization had total costs of \$1.46M. The small overrun does not require supplemental justification. The charges were moved to Parent project 25137. The total spending for this project after the correcting entry is \$800K versus an authorized value of \$1.5M. Therefore neither authorization requires a supplemental justification.							
120	2004	04581	Ashland High School	DP	\$149,079	\$112,000	\$37,079
The high school is a new 200,000 square foot building with a projected load of 1MW. The original authorization for this project was estimated at \$112,000 and was approved on March 7, 2005. The additional \$41,000 in authorized spending requiring by this project was due to the project required additional labor and environmental services that were not in the original estimate.							
120	2004	04610	BECO Mobile Collectors for Parent 2	GP	\$540,895	\$345,000	\$195,895
This supplemental Authorization will enable NSTAR Customer Care to acquire 4 additional Mobile Collectors (MC2s) to read newly installed AMR meters to support the AMR Strategy. By automating the reading process for these meters, NSTAR will concurrently improve reading effectiveness and reduce the manual reading effort in the Southborough, Westwood, and Mass Ave areas by 85 FTEs. -- Supplemental for equipment; 2 for replacements (old vans) 2 to support Waltham Deployment.							
120	2004	04705	Mass Ave - EMC Security Enhancement	GP	\$135,914	\$150,000	(\$14,086)
120	2004	04711	Mass Ave - Tool Room Project	GP	\$386,169	\$680,000	(\$293,831)
120	2004	04745	Chelsea Sta # 488, Station Work - P	DP	\$1,804,208	\$1,780,000	\$24,208
120	2004	04758	Rewind 24-14kV Xfrmr @ Sta 445, Che	DP	\$134,934	\$140,000	(\$5,066)
120	2004	04861	345kV Land Purchases (parent 25069)	GP	\$6,295,981	\$6,565,000	(\$269,019)
120	2004	04869	ROX Dist Sta-Colburn 2004 Summer Mi	DP	\$277,496	\$305,000	(\$27,504)
120	2004	04922	Reconductor 492-1N22N	DP	\$249,633	\$120,000	\$129,633
The additional \$130,000 in authorized spending required by this project was due to the following: 1.Due to condition of existing manholes, project construction required the use of a contractors for environmental cleanup, additional cost for contractor \$5k 2.Project required 1115 more man-hours of labor than the estimate of 1404 man-hours, additional cost \$63k 3.Project materials were under estimated by \$62k as additional cable was required for the job							
120	2004	04931	Jewelers Bldg - 333 Washington St,	DP	\$95,788	\$420,000	(\$324,212)
120	2004	04933	Emerson College - 144 Boylston St,	DP	(\$17,362)	\$167,000	(\$184,362)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2004	04935	Filene's - 426 Washington St, Bosto	DP	\$193,429	\$175,000	\$18,429
120	2004	04941	Nine Zero Hotel - 90 Tremont St, Bo	DP	\$264,587	\$370,000	(\$105,413)
120	2004	04943	Boston YMC Union - 48 Boylston St,	DP	\$400,575	\$387,000	\$13,575
120	2004	04949	Colonnade Hotel - 100 Huntington Av	DP	\$33,879	\$260,000	(\$226,121)
120	2004	04951	Mass Hist. Society - 1154 Boylston	DP	\$92,446	\$123,000	(\$30,554)
120	2004	04953	Beacon St. LLC - 484 Beacon St, Bos	DP	\$102,715	\$121,000	(\$18,285)
120	2004	04961	DSS Reliability Line 329-2219 - Sta	DP	\$1,069,369	\$1,600,000	(\$530,631)
120	2004	04965	Westin Hotel D Street South Boston	DP	\$54,953	\$357,000	(\$302,047)
120	2004	04968	Beacon Capital Partners Midway Sout	DP	\$305,911	\$156,000	\$149,911
The original project authorization assumed a customer contribution of \$234,000 based on annual customer revenues of \$132,218. The final CIAC included a load justification increasing estimated annual customer revenue to \$262,178 and reducing the customer contribution to \$5,600. Net of the decrease in customer contribution this project actually came in under the estimated construction cost.							
120	2004	04985	Reconductor DSS Line 59-1371 - PARE	DP	\$983,722	\$1,100,000	(\$116,278)
120	2004	04989	G & J Parcels (Fallon Co) South Bo	DP	\$226,922	\$333,000	(\$106,078)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
120	2005	05114	Relieve circuit 385-H10	DP	\$262,689	\$200,000	\$62,689
A supplemental authorization for \$263K is being requested for the following cost overruns. The overrun is due to approximately \$16K of NSTAR labor being expended to install and slice additional cable than was estimate to complete this project. The additional material used was approximately 2500 FT of underground cable. This cable was not part of the original estimate or authorized amount. The additional cable cost \$47K which makes up the additional overrun.							
120	2005	05116	Circuit 211-H8 Reconductoring Somer	DP	\$244,175	\$245,000	(\$825)
120	2005	05117	Relieve 240-H5 Walpole	DP	\$155	\$391,000	(\$390,845)
120	2005	05134	Relieve circuit 381-02 and 4kv sta	DP	\$1,057	\$166,000	(\$164,943)
120	2005	05137	292-H9 Backup to Channel 5 Waltham	DP	\$126,038	\$120,000	\$6,038
120	2005	05181	Relieve line 43-1489H MASS	DP	\$128,462	\$125,000	\$3,462
120	2005	05202	Reconductor 514-1N366 Street Work	DP	\$7,463	\$300,000	(\$292,537)
120	2005	05213	Replace oil switches at MASS	DP	\$44,406	\$400,000	(\$355,594)
120	2005	05256	Station 250, Mystic Improvements	DP	\$109,222	\$3,800,000	(\$3,690,778)
120	2005	05277	Circuit 211-09 Conversion Somervill	DP	\$4,431	\$440,000	(\$435,569)
120	2005	05311	Distribution Automation FRAM 2005	DP	\$21,167	\$220,000	(\$198,833)
120	2005	05329	2005 Pole Reinforcements, Ctruss-Fi	DP	\$11,296	\$308,500	(\$297,204)
120	2005	05344	Brook House 33 Pond Avenue, Brookli	DP	(\$2,430)	\$118,000	(\$120,430)

Commonwealth Electric Company

Years 2000-2005

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2000	00536	bay rd 488ckt line ext osterville	DP	\$235,872	\$134,000	\$101,872
A supplemental authorization of \$235.9K is being requested for the following cost overruns. This project was authorized prior to final design. The entire over-run is due to contractor labor being higher than originally estimated.							
150	2000	00537	APUBA PROJECT PARK ST NB	DP	\$157,860	\$187,000	(\$29,140)
150	2000	00612	CKT 604 RELOCATION BRALEY RD EFR	DP	\$314,545	\$263,000	\$51,545
Labor and benefits were underestimated by \$145k due to use of additional company labor rather than contractors and increased overtime required for completion.							
150	2000	00614	NEW BEDFORD SUBSTATIONS-OSHA	DP	\$135,150	\$700,000	(\$564,850)
150	2000	00616	RECONDUCTOR CKT 523 WESTPORT	DP	\$111,710	\$298,000	(\$186,290)
150	2000	00620	NEW BEDFORD OVERHEAD SUPPLY	DP	\$281,611	\$154,000	\$127,611
Both labor and materials exceeded the original authorization as two additional circuits (Line 13 and CKT 49) were added.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2001	01126	PLYMOUTH INDUSTRIAL PRK CKT 14	DP	\$121,956	\$458,000	(\$336,044)
150	2001	01127	BUCK ISLAND RD WIDENING APUBA	DP	\$94,288	\$100,000	(\$5,712)
150	2001	01129	CIRCUIT #84 WATER CROSSING REBUILD	DP	\$184,930	\$250,000	(\$65,070)
150	2001	01130	WELLFLEET DIST SUBSTATION	DP	\$315,229	\$100,000	\$215,229
This project was authorized prior to final design. The authorized estimate was for \$25K of labor and \$75k of material costs. The design estimate was for \$215.9K. The overrun of \$215.2K is due to \$55K of Joint-Owned Billings regarding third party attachment on Telephone Company set poles. These charges are a result of installed infrastructure to address the scope of work for this project. Internal labor was higher than anticipated by \$100K. The remaining overrun of \$60.2K was for external labor to complete the overhead portion of the work.							
150	2001	01133	Station 918 Hyannis Oak Str. Distr	DP	\$480,361	\$300,000	\$180,361
The Distribution street (Child Auth: 01133) overrun is due higher external labor and material costs than designed. The added costs for material were a result of a scope change. This led to installation of remote operated switches on the line, which was not part of the original authorization amount. This caused the cost of the material to increase above their design estimate and led to additional cost for external labor to install these assets.							
150	2001	01135	New Bedford Industrial Park Double	DP	\$137,568	\$471,000	(\$333,432)
150	2001	01143	915 CKT, YARMOUTH-4KV MODERNIZATION	DP	\$122,971	\$100,000	\$22,971
150	2001	01144	CIRCUIT 141 CONVERSION 4KV TO 13.2K	DP	\$135,064	\$256,000	(\$120,936)
150	2001	01147	CKT 970 RECONDUCTOR/TIE MAF	DP	\$471,713	\$314,000	\$157,713
Materials and contractor costs exceed the original authorized amount. Additional services were also required to install a load break switch, pin arms, down guys, and HV insulators.							
150	2001	01148	REPL RECLOSER CONTROLS CAPE	DP	\$238,782	\$100,000	\$138,782
Additional funding is requested in the amount of \$139.3K for work associated with replacing recloser controls at various locations in the NSTAR Cape district. The original request for \$100K was approved in 2001. The work consisted of replacing old recloser controls (Form 3 and Form 3A) with new Form 5 microprocessor-based electron recloser controls. Price overruns were due to contractor installation costs of approximately \$108K, stocked material cost overruns of approximately \$22.6K and NSTAR labor overruns of approximately \$9.3K.							
150	2001	01149	CUMMAQUID HEIGHTS URD REPL	DP	\$120,066	\$168,000	(\$47,934)
150	2001	01150	MASS UG RECONDUCTOR SANTUIT	DP	\$234,089	\$311,000	(\$76,911)
150	2001	01151	NEW SEABURY URD REPLACEMENT	DP	\$561,429	\$332,000	\$229,429
An authorization for \$590,221 is requested to complete the work associated with the reconductoring of the URD subdivision known as New Seabury/Popponesset in Mashpee. The original estimate for this project was \$332,000 and was approved on April 19, 2001. The additional \$258,221 in requested spending is required by this project due primarily to project delays beyond 2001 and additional vendor costs associated with cable installation.							
150	2001	01155	PURCHASE A MOBILE SUBSTATION	DP	\$819,384	\$750,000	\$69,384

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2001	01156	RECONDUCTOR 892 CIRCUIT OSTERVILLE	DP	\$267,825	\$200,000	\$67,825
Project to reconductor CKT 892 from Main Street to Eel River Road, Osterville. Original contractor costs, including Police Details, exceed the original authorization. Expected total spending is \$268.3K							
150	2001	01161	INCREASE CAPACITY-221 CIRCUIT	DP	\$487,858	\$217,000	\$270,858
A supplemental funding amount of \$271K is being requested for the work associated with increasing the capacity of Ckt 221 in Oak Bluffs. These lines feed downtown Oak Bluffs, as well as Martha's Vineyard Hospital, which is the only medical facility on the island. The facility's generator has been unreliable. Due to a radial feed, any major circuit event requires diagnosis and repair prior to power restoration. The project was approved for \$217K in May of 2001. This project was approved based on NSTAR crews performing the work. However, the decision was made to perform the work under contract. The resulting contractor bids received were more than estimated. Due to the critical nature of the work and customer service concerns, the project moved forward.							
150	2001	01162	RECONDUCTOR 845 CIRCUIT FAL	DP	\$121,918	\$100,000	\$21,918
150	2001	01164	FALMOUTH BEAUTIFICATION/APUBA	DP	\$114,576	\$400,000	(\$285,424)
150	2001	01165	HYANNIS TRANSPORTATION CENTER	DP	\$214,075	\$200,000	\$14,075
150	2001	01166	UPPER CAPE WATER SUPPLY SANDWICH	DP	\$136,166	\$208,000	(\$71,834)
150	2001	01332	Double End Valley Dist. Substation,	DP	\$1,030,085	\$1,100,000	(\$69,915)
150	2001	01333	STA 518 HYANNIS OAK ST	DP	\$2,652,128	\$1,800,000	\$852,128
The Distribution Station (Child Auth: 01333) overrun of \$.85M is due to approving the child authorization at the incorrect value. The original authorization stated the distribution station portion of this job would cost \$3.55M. The cost for this work was actually less than its designed amount.							
150	2001	01997	Gas Boy - ComElectric Child Project	GP	\$12,745	\$150,000	(\$137,255)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2002	02101	NEB, CROSS RD STA, REP 109 MAIN	DP	\$231,015	\$100,000	\$131,015
A supplemental authorization for \$232.2K is being requested for the following cost overruns. This project was field estimated and engineered while addressing the scope of the project. The overrun is attributed to significant underestimating the external labor needed to complete this job. Work order 1175317 is for project 02101. Total spending was \$232.2K: Labor of \$26.3K, Invoice of \$196.1K, and \$9.9K of material.							
150	2002	02106	Marshfield, Marshfield Hills CKT 42	DP	\$255,329	\$305,000	(\$49,671)
150	2002	02107	Wareham, Swifts Beach CKT 12J1 Volt	DP	\$189,250	\$150,000	\$39,250
Original authorization issued to relieve load on distribution CKT 12J1 by performing voltage conversion and reconductor on a 5,200 foot section of the circuit out of the Swifts Beach Substation. Supplement required, as it was necessary to perform cutovers in increments per customer requests. Accommodations were made for the Wareham Town Hall and Wareham Middle School.							
150	2002	02108	Plymouth, Woodside Estates URD Reco	DP	\$410,573	\$268,000	\$142,573
A supplemental authorization of \$410.6K is being requested for the following cost overruns. The overrun for this project consisted of installing new concrete vaults for the existing transformers located on site of this development. These activities were not part of the original authorized budget. The original PAD that the current transformers will not be needed to be replaced. However, the vaults on which the transformers sit had to be replaced. This additional work along with the resulting conduit work to connect to these vaults drove the cost of the contractor labor higher than the designed estimate.							
150	2002	02109	Wareham, Great Hill URD Reconductor	DP	\$402,228	\$360,000	\$42,228
Original project included the installation of a duct and manhole system and the installation of primary cable at Great Hill Mobile Park, 2400 Cranberry Highway, Wareham. The owner of the property had concerns with the uneven asphalt conditions of the landscaping provided at the completion of the URD Rebuild. Negotiations were made to provide uniform trenches which required approximately 4000' of 1" grind and overlay product							
150	2002	02110	Plymouth, Ballam Sites URD Recondue	DP	\$230,522	\$255,000	(\$24,478)
150	2002	02111	Plymouth, Pine Ridge Estates URD Ca	DP	\$109,470	\$241,000	(\$131,530)
150	2002	02114	Circuit 102 Upgrade	DP	\$377,458	\$461,000	(\$83,542)
150	2002	02115	Upgrade the tie between the 891 and	DP	\$8,271	\$150,000	(\$141,729)
150	2002	02116	Reconductor the 562 Circuit - Yarmo	DP	\$281,582	\$100,000	\$181,582
A supplemental authorization for \$281.6K is being requested for the following cost overruns. This project was authorized prior to final design. The charges against project 02116 are for two projects. First is Circuit 562 and the other is Circuit 560, which was not part of the original authorization. The Circuit 560 project was to convert a portion of this circuit and tie it into Circuit 562. These collective jobs were authorized for an engineering estimate of \$100,000. These jobs were designed later in 2002 for a total of \$ 259,065. These jobs were outsourced to contractors. Invoice costs not factored into the design were \$208K. Material costs were \$78K. Invoice and material costs are the factors of the overrun. The authorized amount was based on smaller amounts of labor and materials to complete this job.							
150	2002	02117	Road Widening Yarmouth	DP	\$115,171	\$150,000	(\$34,829)

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Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2002	02407	Electric GIS child project	GP	\$6,611,976	\$5,238,194	\$1,373,782
The authorization for this project was approved at \$6,699,000 in NOV-2002. The scope was increased an additional \$ 1,917,300 to convert outstanding work orders for Commonwealth Electric's Plymouth and Cape Vineyard districts, to convert additional distribution facility data, to convert overhead transmission facility data and to develop transmission GIS software. Original estimates were prepared estimating the vast number of distribution facilities throughout the NSTAR Cambridge and Commonwealth Electric service territories. NSTAR as-built field conditions varied significantly from internal distribution documents and databases. Aerial photography, internal data compilation from thousands of paper and digital data sources resulted in the conversion of thousands facilities not estimated or anticipated. Additional contractor labor was required to convert these additional facilities, perform quality assurance/quality control and develop supporting transmission GIS software. Parent project 25024 includes children projects 02406, 02407, 02409, & 02410.							
150	2002	02410	com elec - hw - electric GIS - paren	GP	\$12,170	\$161,200	(\$149,030)
150	2002	02417	com elec cic implementation parent	GP	\$1,832,611	\$971,461	\$861,150
The Initial PAD for this project was based on a Rough Order of Magnitude (ROM) cost estimate. The Final revised PAD includes cost increases for system integration reflecting a more refined project scope and the following scope changes: Service Order and Daily Batch Updates, Notes Renumbering, Vacant Accounts, Sanitary Code Violations, Service Continuation, Abend Changes, Read in/Read out, Party relationship, BAAP1 changes for Daily Update, RAC implementation, Control and Error Handling and Resolution of the Exception Logger Variable Errors. Additional external services costs not previously identified include performance, stress and acceptance testing as well as an overall project assessment from an independent provider. Additional project hardware and software costs are required to insure cost savings by providing necessary response times, redundancy for reliance and storage requirements.							
150	2002	02424	Com Elec H/w cic implementation par	GP	\$458,814	\$396,659	\$62,155
The Initial PAD for this project was based on a Rough Order of Magnitude (ROM) cost estimate. The Final revised PAD includes a cost increases for system integration reflecting a more refined project scope and the following scope changes: Service Order and Daily Batch Updates, Notes Renumbering, Vacant Accounts, Sanitary Code Violations, Service Continuation, Abend Changes, Read in/Read out, Party relationship, BAAP1 changes for Daily Update, RAC implementation, Control and Error Handling and Resolution of the Exception Logger Variable Errors. Additional external services costs not previously identified include performance, stress and acceptance testing as well as an overall project assessment from an independent provider. Additional project hardware and software costs are required to insure cost saving by providing necessary response times, redundancy for reliance and storage requirements.							
150	2002	02467	comm elec Oper Model Integration pa	GP	\$289,129	\$319,160	(\$30,031)
150	2002	02474	com elect supplier payment enhancem	GP	\$464,368	\$583,920	(\$119,552)
150	2002	02507	real estate - summit land purchase	GP	\$1,270,727	\$1,269,866	\$861
Total expected spending for this project is \$1.27M							
150	2002	02508	real estate - summit building purch	GP	\$11,436,542	\$11,428,791	\$7,751
Total expected spending for this project is \$11.44M							
150	2002	02705	Plymouth Service Center - Construct	GP	\$532,962	\$483,000	\$49,962

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Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2003	03196	Reconductor 84 Line to 795	DP	\$718,691	\$500,000	\$218,691
This overrun is due to an error made in the quantity of material estimated for work order 1196638 (\$47K) and an error in the estimate of labor to complete this work (\$103). The remaining \$3.6K are minor tools and materials charged against this job.							
150	2003	03205	Reconductor 14 Line to 795	DP	\$362,668	\$750,000	(\$387,332)
150	2003	03211	Distribution Automation - NSTAR Sou	DP	\$902,393	\$1,412,490	(\$510,097)
150	2003	03254	Circuit 960 Reconductor/Voltage Con	DP	\$354,454	\$225,000	\$129,454
This project was authorized prior to final design. This project was estimated for \$259,115 with labor being \$141,796 of the total. This job was awarded to contractors for \$281,792 including Police Details. This invoice piece exceeded the labor and invoice estimate from Passport by \$112.5K. The material costs exceeded their estimate by \$17K.							
150	2003	03255	Rebuild and break-upCir 552 in Denn	DP	\$259,791	\$175,000	\$84,791
Original contractor costs exceeded the original authorization. An additional \$40K of additional contractor services was also required.							
150	2003	03256	Eastham Convert Large Step Down Are	DP	\$307,358	\$274,600	\$32,758
150	2003	03260	New Seabury URD Cable Cure Injectio	DP	\$30,982	\$100,000	(\$69,018)
150	2003	03270	Releive Falmouth Low Voltage Sub	DP	\$240,725	\$210,000	\$30,725
Original contractor costs exceeded the original estimate. Additional labor required to set a new 45' pole, transfer primary and secondaries, remove 4.8 Delta transformers, and replace with 14.4 Wye.							
150	2003	03271	Relieve Brewster Low Voltage Sub	DP	\$0	\$225,000	(\$225,000)
150	2003	03282	Brewster Kings Grant URD rebuild	DP	\$175,038	\$150,000	\$25,038
Approval is requested for additional funding in the amount of \$28K for the URD Rebuild project at Kings Grant in Brewster, MA. The project was originally approved in the amount of \$150K in April of 2003. The additional funding request is due contractor bid overrun from design estimate and additional duck system work of approximately \$20K and NSTAR labor of approximately \$8K. Kings Grant is a residential subdivision that has been supplied by underground cable since the early 1970's. The work was required due to numerous customer outages and complaints.							
150	2003	03336	Distribution Automation - NSTAR Sou	DP	\$397,330	\$1,153,186	(\$755,856)
150	2003	03337	Distrbution Automation - NSTAR Sout	DP	\$496,839	\$691,912	(\$195,073)
150	2003	03346	Distr Automation - Computer Hardwar	GP	\$971,653	\$617,414	\$354,239
Parent project 25057 was authorized in total for \$8,002,726 with total actual spend of \$4,971,784 so no supplement is required. The child project numbers are 03210, 03211, 03332, 03333, 03334, 03335, 03336, 03337, & 03346.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2003	03406	2003 M3i CE sw parent (25025)	GP	\$1,059,569	\$926,811	\$132,758
Parent project 25025 was authorized in total for \$3,310,100 with total actual spend of \$3,431,260 so no supplement is required. The child project numbers are 03426, 03427, 03428, 03405, 03406, & 03407. Expected total spending for this child authorization is \$1.1M							
150	2003	03427	2003 m3i CE hw parent (25025)	GP	\$71,889	\$146,986	(\$75,097)
Parent project 25025 was authorized in total for \$3,310,100 with total actual spend of \$3,431,260 so no supplement is required. The child project numbers are 03426, 03427, 03428, 03405, 03406, & 03407.							
150	2003	03603	Itron Phase II Deployment	GP	\$236,095	\$250,000	(\$13,905)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2004	04104	4-96-674 - Circuit Upgrade	DP	\$54,747	\$117,705	(\$62,958)
150	2004	04105	4-88B-814 - Circuit Upgrade	DP	\$245,545	\$272,587	(\$27,042)
150	2004	04121	Ckt 433, 434 & Line 97, Barnstable	DP	\$532,183	\$223,900	\$308,283
Additional funding was required to complete this work. Contractor bids were higher than originally estimated. These amounts for additional work were not in the original design. Additional work included a new feed for the 434 circuit and the reconfiguration of the feeder line to the 433 circuit.							
150	2004	04123	Relieve Ckt 226 Stepdown	DP	\$138,993	\$134,400	\$4,593
150	2004	04124	Relieve Ckt 880 (Barnstable)	DP	\$293,372	\$179,200	\$114,172
Additional funding was required to complete this work because bids were higher than original estimated amounts.							
150	2004	04125	2nd 23kV Falmouth to Woods Hole DSS	DP	\$1,093,789	\$1,495,600	(\$401,811)
The original authorized amount is not sufficient, primarily due to an expanded project scope and additional conduit installation cost. The original estimate called for one (1) new underground line from Falmouth Bulk to Elm Rd. The current design is to install two (2) separate lines. Along with the addition of a second cable, the project also requires two (2) additional switches and added costs to terminate the 2nd cable. The addition of a 2nd cable increases the cost of the project by approx. \$575,000. The conduit installation cost was estimated to be \$650,000, but the actual cost was \$1,100,000. Total expected spending on this project is \$2.2M							
150	2004	04127	URD Rebuild - Hillside Acres, Truro	DP	\$96,640	\$179,116	(\$82,476)
150	2004	04128	Reconfigure Ckt 514, Barnstable	DP	\$345,016	\$313,500	\$31,516
150	2004	04129	2004 Cape & Vnyd Distribution Autom	DP	\$2,546,690	\$1,976,508	\$570,182
Project spending to date includes \$1,040,828 that was spent in 2003 under the 2003 Distribution Automation Authorization 25057.							
150	2004	04131	Cape & Vnyd - Pole Replacements	DP	\$407,808	\$345,514	\$62,294
Pole inspections conducted by contractor labor turned up more poles in the Cape and Vineyard that required replacement or restoration. This project is part of Parent authorization 25094 which is authorized for \$4M. Total spending on this parent was only \$2.8M therefore a supplemental authorization is not required.							
150	2004	04132	Cape & Vnyd - Pole Restorations	DP	\$167,034	\$145,980	\$21,054
150	2004	04206	Reconductor Circuit 38J1, Plymouth	DP	\$523,015	\$232,900	\$290,115
Additional funding was required to complete this work because contractor bids were higher than original estimated amounts and a portion of the work that was originally not in the design.							
150	2004	04207	Circuit 28J3 (Plymouth)	DP	\$86,355	\$268,700	(\$182,345)
150	2004	04208	Circuit 912 Stepdown Area (Duxbury)	DP	\$247,475	\$143,300	\$104,175
Additional funding was required to complete this work because the contractor bids were higher than original estimated amounts and a portion of the work that was originally not in the design due to changes in scope.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2004	04209	Circuit 703 Delta Stepdown Area (Ro	DP	\$627,776	\$241,800	\$385,976
Additional funding was required to complete this work because the contractor bids were higher than original estimated amounts and a portion of the work that was originally not in the design. There were 30 sections that were listed on the circuit print as 3-3/0 Aluminum and in the field it was later noted that the middle phase was 3/0 and the outside phases were #4 and # 6 copper. There are also several areas where system neutrals are required because this was originally a delta system. These were also not in the original design. The additional funding will allow for reconductoring the obsolete undersized wire. It is also beneficial to the Company to do this work to maintain a credible relationship with Verizon who has replaced 119 poles for this project.							
150	2004	04211	Circuit 912 Stepdown Area (Powder P	DP	\$240,208	\$179,100	\$61,108
Additional funding was required to complete this work because the contractor bids were higher than original estimated amounts.							
150	2004	04212	Circuit 962, Convert/Reconductor	DP	\$172,571	\$291,066	(\$118,495)
150	2004	04214	Circuit 39J1 (Duxbury)	DP	\$146,433	\$241,800	(\$95,367)
150	2004	04217	Plymouth - Pole Replacements	DP	\$286,964	\$157,520	\$129,444
Pole inspections conducted by contractor labor turned up more poles in the Plymouth area that required replacement or restoration. An estimated 120 poles were replaced by NSTAR crews. This project is part of Parent authorization 25094 which is authorized for \$4M. Total spending on this parent was only \$2.8M therefore a supplemental authorization is not required.							
150	2004	04220	2004 Plymouth Distribution Automati	DP	\$1,414,722	\$811,668	\$603,054
Expected total spending for this project is \$1.438M. Project spending to date includes amounts spent in 2003 under the 2003 Distribution Automation Authorization 25057. This child authorization is part of a parent authorization which was authorized for \$5M in 2004. The overall spending for this parent authorization is \$3.8M. There were mis-charges between 2003 and 2004 work plans that are part of the \$3.8M annual spending. The 2003 parent authorization has authorized spending of \$8.8M with only \$5.2M of annual spending charged against it. Both parent authorizations have available funding for the mis-charges and to support the overrun within this child authorization.							
150	2004	04222	New Bedford - Pole Replacements	DP	\$173,990	\$243,857	(\$69,867)
150	2004	04225	2004 New Bedford Distribution Autom	DP	\$457,846	\$541,852	(\$84,006)
150	2004	04231	Hollywoods Stepdowns - Ckt 305	DP	\$22,589	\$134,400	(\$111,811)
150	2004	04410	CE hw mobile terminal south (25046)	GP	\$113,097	\$112,264	\$833
150	2004	04464	CE hw nis infrastructure 04	GP	\$247,296	\$222,000	\$25,296
This project had mis-charges totalling \$776K. This project was authorized under Parent project 25082 for \$1.38M. After the correction of the mis-charges of \$776K this parent authorization had total costs of \$1.46M. The small overrun does not require supplemental justification. The charges were moved to Parent project 25137. The total spending for this project after the correcting entry is \$800K versus an authorized value of \$1.5M. Therefore neither authorization requires a supplemental justification.							
150	2004	04702	Yarmouth Women's Locker/Restroom Fa	GP	\$721,972	\$607,000	\$114,972
Changes and additions were made to the project scope in the areas of fire safety and communications access and furnishings for Emergency Response Plan (ERP) flexibility. Additions were also made to enhance communications security and to correct problems discovered during construction with existing underground utility conditions.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2004	04706	Yarmouth - Roof Replacement Warehou	GP	\$326,750	\$319,000	\$7,750
150	2004	04915	DAR - Upgrade Fisher Rd Station #65	DP	\$39,119	\$150,000	(\$110,881)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
150	2005	05287	Convert & reconductor Ckt 35J2	DP	\$846	\$238,000	(\$237,154)
150	2005	05316	Distribution Automation Cape/Vineya	DP	\$82,270	\$225,000	(\$142,730)
150	2005	05317	Distribution Automation Plymouth 20	DP	\$211,270	\$705,000	(\$493,730)
150	2005	05318	Distribution Automation New Bedford	DP	\$45,370	\$128,000	(\$82,630)
150	2005	05319	Pole replacemnts Cape/Vineyard	DP	\$79,758	\$175,000	(\$95,242)
150	2005	05320	Pole Replacements Plymouth	DP	\$16,283	\$140,000	(\$123,717)
150	2005	05321	Pole Replacements New Bedford	DP	\$1,096	\$100,000	(\$98,904)

Cambridge Electric Light Company

Years 2000-2005

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
160	2001	01140	Cambridge OSHA Child	DP	\$443,070	\$250,000	\$193,070
Project ID Number: 25016 Child Auth: 01138 Raise Substation Equipment Child Auth: 01140 Cambridge OSHA Child Auth: 99552 Plymouth OSHA Child Auth: 99553 Cape & Vineyard OSHA This document is to be included with the original Parent 25016 authorization for OSHA work. This details the child authorizations that are included in the original funding of the parent. The child authorization and the parent have not exceeded their authorized values							
160	2001	01178	Lyme Properties 320 Bent Street	DP	\$71,370	\$152,000	(\$80,630)
160	2001	01190	301 Binney Street, Cambridge	DP	\$771,793	\$396,000	\$375,793
A supplemental authorization for \$771.8K is being requested for the following cost overruns. This project was authorized prior to final design. The design estimate was \$534.7K. The over-run for the job is due to both internal and external labor being higher than estimated. External labor was over by \$292.1K due to additional conduit costs as a result of blocked and collapsed ducts. There was also added external labor for civil work for the vault portion of the project. Internal labor was over by \$83.1K due to additional testing and splicing required with this added underground work. Overtime consisted of \$27.8K of the total internal labor overrun. Overtime was not factored into the original estimate.							
160	2001	01319	Restore Blackstone Street Generator	DP	(\$82,889)	\$680,000	(\$762,889)

The authorization for this project was approved at \$6,699,000 in NOV-2002. The scope was increased an additional \$1,917,300 to convert outstanding work orders for Commonwealth Electric's Plymouth and Cape Vineyard districts, to convert additional distribution facility data, to convert overhead transmission facility data and to develop transmission GIS software. Original estimates were prepared estimating the vast number of distribution facilities throughout the NSTAR Cambridge and Commonwealth Electric service territories. NSTAR as-built field conditions varied significantly from internal distribution documents and databases. Aerial photography, internal data compilation from thousands of paper and digital data sources resulted in the conversion of thousands facilities not estimated or anticipated. Additional contractor labor was required to convert these additional facilities, perform quality assurance/quality control and develop supporting transmission GIS software. Parent project 25024 includes children projects 02406, 02407, 02409, & 02410.

The Initial PAD for this project was based on a Rough Order of Magnitude (ROM) cost estimate. The Final revised PAD includes a cost increases for system integration reflecting a more refined project scope and the following scope changes: Service Order and Daily Batch Updates, Notes Renumbering, Vacant Accounts, Sanitary Code Violations, Service Continuation, Abend Changes, Read in/Read out, Party relationship, BAAPL changes for Daily Update, RAC implementation, Control and Error Handling and Resolution of the Exception Logger Variable Errors. Additional external services costs not previously identified include performance, stress and acceptance testing as well as an overall project assessment from an independent provider. Additional project hardware and software costs are required to insure cost saving by providing necessary response times, redundancy for reliance and storage requirements.

Total expected spending for this project is \$282.4K

Total expected spending for this project is \$2.33M

[illegible]

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
160	2004	04239	Circuit 13-02 Cambridge	DP	\$280,442	\$134,400	\$146,042
The additional \$146,000 in authorized spending required by this project was due to condition of existing manholes, project construction required the use of a contractors for environmental cleanup that was not included in the original estimate, additional cost for contractors \$9k, project required 568 more man-hours of labor than the estimate of 1742 man-hours, additional cost \$34k, project materials were under estimated by \$103k as additional cable and conduit was required for the job.							
160	2004	04241	Circuit 13-12 Cambridge	DP	\$110,668	\$215,000	(\$104,332)
160	2004	04243	1-12-P102, Reconductor UG Section	DP	\$31,659	\$223,896	(\$192,237)
160	2004	04738	Station 329 Brighton Aesthetic Impr	DP	\$369,880	\$350,000	\$19,880
160	2004	04755	CAMB - STA 817, REWIND TRANSFORMER	DP	\$98,924	\$100,000	(\$1,076)

**NSTAR Gas Company
(Non - Revenue Producing Projects)**

**Capital Authorizations in Excess of
\$100,000
Years 2000-2005**

Justifications provided for cost variances:

- Over \$25k for projects < \$250k
- Over \$50k for projects < \$500k
- Over 10% for projects > \$500k
- Any project with variance > \$1M

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
200	2000	00801	200 Cambridge Pk Dr5, Cambridge	GAS	\$536,306	\$434,000	\$102,306
This supplement is required due to account for work order 0431785, Forest St., Marlboro relay that was linked to this project ID in error.							
200	2000	00802	Grafton/Gold St, Shrewsbury	GAS	\$150,569	\$104,000	\$46,569
This supplement is a request for the transfer of budget dollars from the Distribution line of business relay budget where the relay portion of this project was originally authorized.							
200	2000	00805	Maple St, West Boylston	GAS	\$158,898	\$130,000	\$28,898
The Company's contractor was entitled to additional payment over and above the contract price for 92 feet of additional main pipe installed and associated services. This includes extra excavation.							
200	2000	00806	Shrewsbury St #1, Worcester	GAS	\$359,827	\$259,000	\$100,827
This supplement includes an additional requests for to cover material and miscellaneous charges for materials and invoices averaging less than \$2000 each that should have been charged to a line of business project, but were charged to this specific project in order to get the costs in the correct tax district and correct plant account.							
200	2000	00808	So Meadow/Main St, Carver	GAS	\$165,245	\$153,000	\$12,245
200	2000	00813	Windsor St, Worcester	GAS	\$117,939	\$100,000	\$17,939
200	2000	00814	Waverly St Fram Proj, Framingham	GAS	\$488,353	\$182,000	\$306,353
This supplement includes an additional request for: (1) an additional 715 feet of IP plastic pipe and associated service relays; and (2) charges for prior year materials and invoices that should have been charged to a line of business project, but were charged to this specific project in order to get the costs in the correct tax district and correct plant account.							
200	2000	00818	GATES ST BRIDGE, WORCESTER	GAS	(\$27,841)	\$136,000	(\$163,841)
200	2000	00819	Rindge Ave Cambridge	GAS	\$220,207	\$178,000	\$42,207
The Company's contractor was entitled to additional payment over and above the contract price for 385 feet of additional main pipe installed and associated services. This includes extra excavation.							
200	2000	00820	Park St #3 New Bedford	GAS	\$60,335	\$170,000	(\$109,665)
200	2000	00823	Central Avenue I, Needham	GAS	\$170,865	\$266,000	(\$95,135)
200	2000	00824	Hartford Turnpike, Shrewsbury	GAS	\$83,023	\$137,000	(\$53,977)
200	2000	00827	Brookford St,Huron & Concord, Camb	GAS	\$225,949	\$230,000	(\$4,051)
200	2000	00829	Hawthorne St, Dartmouth	GAS	\$387,612	\$291,000	\$96,612
The Company's contractor was entitled to additional payment over and above the contract price for numerous extra weld offsets, extra x-rays, loam and seed off pavement, extra processed gravel, ledge removal, excavation and repair of leaks on valves, extra excavation due to unanticipated test holes, stump removal, and tunneling under 24", and 30" drains.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
200	2001	01804	Howe Ave, Millbury	GAS	\$168,429	\$110,000	\$58,429
During construction it was determined that additional pipe needed to be replaced due to its severely corroded condition. An additional 457 feet of main and the associated services require replacement.							
200	2001	01806	King St, Worcester	GAS	\$73,585	\$97,000	(\$23,415)
200	2001	01807	Union St/CI, New Bedford	GAS	\$42,006	\$94,000	(\$51,994)
200	2001	01809	Coburn Avenue, Worcester	GAS	\$263,941	\$172,000	\$91,941
The Company's contractor was entitled to additional payment over and above the contract price for numerous extra weld offsets around drains; time and material to excavate and repair leaks on valves; extra excavation due to unanticipated test holes; additional installation of pipe above estimate length; and time and material to replace a stone culvert.							
200	2001	01811	Tatman Street, Worcester	GAS	\$83,571	\$98,000	(\$14,429)
200	2001	01813	Mill Lane, Dedham	GAS	\$55,404	\$168,000	(\$112,596)
200	2001	01817	Hildreth St #1, Marlboro	GAS	\$213,523	\$91,000	\$122,523
The Company's contractor was entitled to additional payment over and above the original estimate for extra costs incurred for removal of boulders, temporary paving, additional pipe replaced, and unanticipated excavation for test holes.							
200	2001	01818	Washington St 1, Natick	GAS	\$76,359	\$99,000	(\$22,641)
200	2001	01819	Rirer Street #1, Hyde Park	GAS	\$281,709	\$227,000	\$54,709
The Company's contractor was entitled to additional payment over and above the contract price for 262 feet of additional main pipe installed due to the condition of the replaced pipe upon excavation and associated services. This includes extra excavation.							
200	2001	01821	Magazine/Fairmont St, Cambridge	GAS	\$707	\$128,000	(\$127,293)
200	2001	01824	Tarklin Hill Rd, New Bedford	GAS	\$74,554	\$120,000	(\$45,446)
200	2001	01826	Wood St/Slocum St, New Bedford	GAS	\$163,216	\$118,000	\$45,216
Additional funds are required to install a temporary 8" bypass across the Acushnet River Bridge. The temporary 8" line will be retired once the permanent 12" steel line is installed. This is required because this is the IP feed to the M&M line and the 12" line can't be installed until a later phase of the 2-year bridge construction project.							
200	2001	01827	Loc 661 Controls Upgrade, Hopkinton	GAS	\$147,644	\$150,000	(\$2,356)
200	2001	01828	Waverly St #2, Framingham	GAS	\$270,457	\$231,000	\$39,457
The Company's contractor was entitled to additional payment over and above the contract price for 114 feet of additional main pipe installed and associated services. This includes extra excavation due to unanticipated test holes, and additional paving costs.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
200	2001	01834	Beacon Street, Worcester	GAS	\$74,598	\$92,000	(\$17,402)
200	2001	01842	Charles River Rd Brg, Needham	GAS	\$45,985	\$149,000	(\$103,015)
200	2001	01845	Kendall Station, Cambridge	GAS	(\$2,482,592)	\$9,201,000	(\$11,683,592)
200	2001	01998	ComGas Gas Boy - Child Project	GP	\$355	\$150,000	(\$149,645)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
200	2002	02090	cic implementation com gas h/w (par	GP	\$320,058	\$284,491	\$35,567
The Initial PAD for this project was based on a Rough Order of Magnitude (ROM) cost estimate. The Final revised PAD includes a cost increases for system integration reflecting a more refined project scope and the following scope changes: Service Order and Daily Batch Updates, Notes Renumbering, Vacant Accounts, Sanitary Code Violations, Service Continuation, Abend Changes, Read in/Read out, Party relationship, BA-API changes for Daily Update, RAC implementation, Control and Error Handling and Resolution of the Exception Logger Variable Errors. Additional external services costs not previously identified include performance, stress and acceptance testing as well as an overall project assessment from an independent provider. Additional project hardware and software costs are required to insure cost saving by providing necessary response times, redundancy for reliance and storage requirements.							
200	2002	02418	cic implementation com gas s/w (par	GP	\$1,310,221	\$696,749	\$613,472
The Initial PAD for this project was based on a Rough Order of Magnitude (ROM) cost estimate. The Final revised PAD includes a cost increases for system integration reflecting a more refined project scope and the following scope changes: Service Order and Daily Batch Updates, Notes Renumbering, Vacant Accounts, Sanitary Code Violations, Service Continuation, Abend Changes, Read in/Read out, Party relationship, BA-API changes for Daily Update, RAC implementation, Control and Error Handling and Resolution of the Exception Logger Variable Errors. Additional external services costs not previously identified include performance, stress and acceptance testing as well as an overall project assessment from an independent provider. Additional project hardware and software costs are required to insure cost saving by providing necessary response times, redundancy for reliance and storage requirements.							
200	2002	02468	oper model integration com gas s/w	GP	\$201,639	\$222,582	(\$20,943)
200	2002	02502	ComGas-Land Purchases & Sale	GP	\$571,362	\$987,673	(\$416,311)
Total expected spending for this project is \$594K							
200	2002	02503	Real Estate - Summit Building Purch	GP	\$3,354,703	\$8,889,060	(\$5,534,357)
Total expected spending for this project is \$3.35M							
200	2002	02801	Hopkinton-Ashland Transfer Line Rel	GAS	\$228,493	\$206,000	\$22,493
200	2002	02802	South Street, Shrewsbury	GAS	\$319,295	\$292,000	\$27,295
200	2002	02803	Central Avenue, Needham System Impr	GAS	\$154,552	\$219,000	(\$64,448)
200	2002	02804	Marlborough Take Station	GAS	\$1,214,828	\$1,200,000	\$14,828
200	2002	02806	Hyde Park 25 psi Cast Iron System R	GAS	\$213,920	\$4,750,000	(\$4,536,080)
200	2002	02807	Coburn Avenue, Worcester	GAS	\$336,112	\$400,000	(\$63,888)
200	2002	02809	Vassar Street, Cambridge Cast Iron	GAS	\$158,596	\$270,000	(\$111,404)
200	2002	02810	Needham Take Station	GAS	\$341,774	\$1,925,000	(\$1,583,226)
200	2002	02811	Rte. 146 - Hurley Square, Worcester	GAS	\$20,867	\$153,000	(\$132,133)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
200	2002	02814	Burncoat Street, Worcester	GAS	\$181,708	\$197,000	(\$15,292)
200	2002	02816	Maple Avenue, Shrewsbury	GAS	\$213,954	\$240,000	(\$26,046)
200	2002	02817	Beacon Street (Kent to Prentiss), C	GAS	\$178,058	\$196,000	(\$17,942)
200	2002	02829	Acushnet Avenue, New Bedford	GAS	\$117,145	\$321,000	(\$203,855)
200	2002	02834	Vassar Street, Cambridge	GAS	\$194,850	\$144,000	\$50,850

During construction a third party contractor working in the area damaged the newly installed pipe. The Company's contractor installed a new section of pipe as a replacement. The Company paid its contractor. An offline invoice was created by the area manager to bill the third party and the amount is now in collections. The area manager is working with an in-house attorney. The area manager was advised by Investment Planning to forward his documentation to Fixed Assets Accounting so a sundry invoice could be created; the work order would get credited; and a receivable would get set up.

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
200	2003	03708	Westwood - Summit Gas Scada Relocat	GP	\$1,026,113	\$1,000,000	\$26,113
200	2003	03813	West Boylston Street, Worcester Reg	GAS	\$21,943	\$110,000	(\$88,057)

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
200	2004	04430	gas compliance sw child (25073)	GP	\$87,748	\$100,000	(\$12,252)
200	2004	04466	CG HW lifecycle 04	GP	\$172,513	\$163,000	\$9,513
200	2004	04701	Southboro- Install cameras & gates	GP	\$183,269	\$123,000	\$60,269
There were mis-charges totalling \$55K for a duplicate invoice of \$35K that was processed in error and \$20K for a invoice that should have went to project 05704. This project 05704 is authorized for \$165K and only has this \$20K of spending charged against it. As a result the total charges for project 04701 is \$128,239.40. The overrun would be only \$5.2K which does not require a supplemental justification.							
200	2004	04803	Worcester Beltway, Worcester	GAS	\$364,946	\$246,000	\$118,946
An additional \$95,000 is needed to supplement the original PAD primarily due to two items: additional cost of 12” steel pipe as steel prices rose significantly after the estimate was completed; and extras on contractor pipeline installation. The extras were additional welds necessary to make offsets around other utilities, x-ray costs for each of these welds, additional pipe footage to make these offsets and ledge removal to ensure proper depth of pipe at some locations.							
200	2004	04809	West Main Street, Marlborough	GAS	\$161,940	\$213,000	(\$51,060)
200	2004	04810	Washington Street, Holliston	GAS	\$338,790	\$350,000	(\$11,210)
200	2004	04811	Sparks Street (Huron to Brattle), C	GAS	\$86,110	\$89,000	(\$2,890)
200	2004	04820	North Lake Avenue, Worcester	GAS	\$135,881	\$208,000	(\$72,119)
200	2004	04824	East Central Street, Natick	GAS	\$55,866	\$115,000	(\$59,134)
200	2004	04826	Sconticut Neck Road, Fairhaven	GAS	\$193,746	\$123,000	\$70,746
An additional amount is required to keep pace with the town’s expanded scope for its sewer restoration plan. An additional 1332 feet of 8” plastic pipe must be installed.							

Company	Year	Project	Project Description	Plant Type	Total Direct Costs	Authorized Amount	Variance
200	2005	05809	Dudley Road, Framingham	GAS	\$30,551	\$98,000	(\$67,449)

**NSTAR Gas Company
(Revenue Producing Projects)**

**Capital Authorizations in Excess of
\$100,000
Years 2000-2005**

Justifications provided for cost variances:

- **Over \$25k for projects < \$250k**
- **Over \$50k for projects < \$500k**
- **Over 10% for projects > \$500k**
- **Any project with variance > \$1M**

Year	Co	Project	Project Description	Minimum Return on Rate Base	Pre-Construction		Post-Construction		Cost Variance	Return on Rate Base Variance
					Total Authorized	Return on Rate Base	Total Costs	Return on Rate Base		
2000	200	00812	Connelly Hills Est Hok	11.215%	\$230,000	12.322%	\$108,693	28.262%	(\$121,307)	15.940%
2000	200	00816	Indian Hills, Worcester	11.215%	\$193,000	10.624%	\$61,576	13.584%	(\$131,424)	2.960%
2000	200	00821	Angela Rose Gardens, Worcest	11.215%	\$108,000	10.763%	\$145,357	7.836%	\$37,357	-2.927%
Customer contribution of \$4,709 increases pre-construction return on rate base to 11.215%. Supplement is required due to increases in material costs and extra construction activity performed by company personnel. Includes additional system improvement on Franklin street to 8" main and revenue from additional capacity was not included in analysis.										
2000	200	00822	176 South St, HOK	11.215%	\$119,000	29.435%	\$72,180	56.756%	(\$46,820)	27.321%
2000	200	00825	Fram Schools/SI, Fram	11.215%	\$256,000	12.865%	\$276,797	12.432%	\$20,797	-0.433%
Actual spending was greater than the pre-construction estimate but below the threshold for supplemental authorizations. Post-construction return on rate base exceeds the minimum return on rate base threshold.										
2000	200	00826	Carriage Hill Est. SOU	11.215%	\$139,000	21.057%	\$142,624	19.755%	\$3,624	-1.302%
Actual spending was greater than the pre-construction estimate but below the threshold for supplemental authorizations. Post-construction return on rate base exceeds the minimum return on rate base threshold.										
2000	200	00828	Hopkinton Meadows, HOK	11.215%	\$117,000	10.578%	\$60,787	23.345%	(\$56,213)	12.767%
Customer contribution of \$8,246 increases pre-construction return on rate base to 11.215%										

Year	Co	Project	Project Description	Minimum Return on Rate Base	Pre-Construction		Post-Construction		Cost Variance	Return on Rate Base Variance
					Total Authorized	Return on Rate Base	Total Costs	Return on Rate Base		
2000	200	00830	Pine Hills	11.215%	\$0	0.000%	\$4,035,312	0.000%	\$4,035,312	0.000%
Parent for children projects 00835, 00836, & 01803. Commonwealth Gas Company entered into an agreement with the Pine Hills Development for new infrastructure to serve the proposed build-out, over a seven year period, within the southern portion of Plymouth. The total development was designed for \$8.2M. Project 00830 was authorized for \$4.486M as a Parent authorization. This authorization detailed the development of the 3300 acre area with the building of a new Gas Supply Take Station, the installation of new Distribution Mains, and initial infrastructure site work within the Pine Hills property. These three components of the project were authorized as individual child authorizations:										
Gas Supply Take Station: Child Authorization 01803 Installation of Distribution Mains: Child Authorization 00836 Pine Hills Development Initial Infrastructure: Child Authorization 00835										
Due to the extended nature of the full development of the entire property, these child authorizations were authorized for the total parent value. The authorized values of the parent were as followed:										
Child Authorization 01803 Authorized Value: \$1.052M Child Authorization 00836 Authorized Value: \$2.977M Child Authorization 00835 Authorized Value: \$.457M										
The remainder of the designed value was for \$3.714M to be part of NSTAR Gas Company's Line of Business authorization during the full build-out of this region. As a result of this agreement with the Pine Hills Development, the Pine Hills Development agreed to pay a refundable contribution of \$3M to the NSTAR Gas Company for the construction of the new infrastructure. This refundable contribution would be paid back to the Pine Hills Development, no sooner than year 7 of the build-out (12/07). The refunding of the contribution is contingent on a certain number of new homes and commercial properties being installed and/or built, which will allow for the NSTAR Gas Company to achieve equal or larger revenues to match the upfront contribution of \$3M.										
2000	200	00831	200 Forest St - Svcs, MAB	11.215%	\$106,000	14.732%	\$3,558	528.742%	(\$102,442)	514.010%
2000	200	00832	Meadowbrook, Vlg-Svc BER	11.215%	\$102,000	19.685%	\$55,030	40.819%	(\$46,970)	21.134%
2000	200	00834	Nbr The Hills Bradford Develo	11.215%	\$442,000	15.065%	\$185,380	39.510%	(\$256,620)	24.445%
2000	200	00835	Pinehills PHII, PLY	0.000%	\$457,000	0.000%	\$133,470	0.000%	(\$323,530)	0.000%
Child of parent 00830. Return on rate base not applicable, please see project 00830 for additional details.										
2000	200	00836	Pine Hills III-A, PLY	0.000%	\$2,976,000	0.000%	\$242,192	0.000%	(\$2,733,808)	0.000%
Child of parent 00830. Return on rate base not applicable, please see project 00830 for additional details.										
2001	200	01801	Grafton/Puriton Streets Shrews	11.215%	\$189,000	13.185%	\$50,163	75.842%	(\$138,837)	62.657%

Year	Co	Project	Project Description	Minimum Return on Rate Base	Pre-Construction		Post-Construction		Cost Variance	Return on Rate Base Variance
					Total Authorized	Return on Rate Base	Total Costs	Return on Rate Base		
2001	200	01802	575 Wheeler Road Marlboro	11.215%	\$152,000	9.600%	\$125,102	18.708%	(\$26,898)	9.108%
Customer contribution of \$37,594 increases pre-construction return on rate base to 11.215%										
2001	200	01803	Take Sta Bourne Rd, So. Plym	0.000%	\$1,052,000	0.000%	\$959,901	0.000%	(\$92,099)	0.000%
Child of parent 00830. Return on rate base not applicable, please see project 00830 for additional details.										
2001	200	01810	The seasons-Svcs, HOD	11.215%	\$136,000	19.210%	\$38,764	37.812%	(\$97,236)	18.602%
2001	200	01814	Oakmont Farms PH III, GRA	11.215%	\$145,000	11.697%	\$132,844	13.413%	(\$12,156)	1.716%
2001	200	01835	Avalon Orchards	11.215%	\$187,000	12.352%	\$108,257	25.674%	(\$78,743)	13.322%
2001	200	01837	Cookinham Greene, Ash	11.215%	\$190,000	10.441%	\$174,210	12.155%	(\$15,790)	1.714%
Customer contribution of \$15,360 increases pre-construction return on rate base to 11.215%										
2001	200	01838	770-790 Memorial Svcs, CAM	11.215%	\$103,000	41.623%	\$137,469	35.879%	\$34,469	-5.744%
The Company's contractor was entitled to additional payment over and above the original estimate for extra costs incurred including but not limited to: removal of boulders, temporary paving, and unanticipated excavation. Post-construction return on rate base exceeds the minimum return on rate base threshold.										
2001	200	01839	Avalon @ Flanders, WEB	11.215%	\$245,000	18.779%	\$182,625	29.960%	(\$62,375)	11.181%
2001	200	01843	The villages @ hudson-svcs, H	11.215%	\$137,000	29.381%	\$349,808	12.539%	\$212,808	17.292%
The prior authorized amount was for the IP plastic system improvement portion of the project. The additional funds are required to install the additional main within the subdivision and 150 services.										

Revenue Producing Projects

Based on the internal rate of return

Year	Co	Project	Project Description	Minimum IRR	Pre-Construction		Post-Construction		Cost Variance	IRR Variance
					Total Authorized	IRR	Total Costs	IRR		
2002	200	02815	Shoppes at Blackstone, Millbur	7.717%	\$239,000	31.570%	\$41,860	194.660%	(\$197,140)	163.090%
2002	200	02821	Ponds of Plymouth/Buttermilk,	7.717%	\$2,202,000	15.550%	\$2,680,096	12.770%	\$478,096	-2.780%
The Company's contractor was entitled to additional payment over and above the original estimate for extra costs incurred including but not limited to: route changes, material costs, removal of boulders, temporary paving, and unanticipated excavation. Post-construction IRR exceeds the minimum IRR threshold.										
2002	200	02830	Shining Rock, Northbridge	7.717%	\$493,000	12.810%	\$198,385	29.640%	(\$294,615)	16.830%
2002	200	02831	Grafton/Upton System Improv	7.717%	\$1,884,000	13.810%	\$874,307	29.900%	(\$1,009,693)	16.090%
2002	200	02835	Off Phillips Road, New Bedfor	7.717%	\$262,000	11.640%	\$78,461	32.680%	(\$183,539)	21.040%
2003	200	03806	Stop & Shop, Freetown	7.717%	\$116,000	22.490%	\$163,795	16.130%	\$47,795	-6.360%
The Company's contractor was entitled to additional payment over and above the original estimate for extra costs incurred including but not limited to: route changes, material costs, removal of boulders, temporary paving, and unanticipated excavation. Post-construction IRR exceeds the minimum IRR threshold.										
2003	200	03807	Campanelli Project, Freetown	7.717%	\$341,000	12.320%	\$119,624	71.780%	(\$221,376)	59.460%
2003	200	03809	Estates at Highland Ridge, Ho	7.717%	\$153,000	14.380%	\$91,449	37.500%	(\$61,551)	23.120%
2003	200	03811	Salisbury Hill, Worcester	7.717%	\$327,000	28.422%	\$41,854	227.370%	(\$285,146)	198.948%
2003	200	03816	Good Harbor Heights/Arrowsic	7.717%	\$160,000	13.140%	\$50,829	52.780%	(\$109,171)	39.640%
2003	200	03822	Adams Crossing - Glenwwood	7.717%	\$171,000	17.480%	\$158,415	17.810%	(\$12,585)	0.330%
2003	200	03825	Algonquin Regional HS / Stirr	7.717%	\$232,000	12.980%	\$129,836	24.050%	(\$102,164)	11.070%

Year	Co	Project	Project Description	Minimum IRR	Pre-Construction		Post-Construction		Cost Variance	IRR Variance
					Total Authorized	IRR	Total Costs	IRR		
2004	200	04805	MPO Bay Club / ROC Rochest	7.820%	\$736,259	16.280%	\$649,819	16.490%	(\$86,440)	0.210%
\$307,995.58 of cost is still in work in process.										
2004	200	04807	Newell Rd, Holden	7.820%	\$232,686	16.340%	\$136,357	26.170%	(\$96,329)	9.830%
2004	200	04816	UMASS Medical, Worcester	7.820%	\$369,000	55.310%	\$201,270	124.340%	(\$167,730)	69.030%
2004	200	04817	Biogen, Cambridge	7.820%	\$750,000	28.150%	\$254,591	57.820%	(\$495,409)	29.670%